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of / de



**Criminal Code/Code criminel****DESIGNATION OF QUALIFIED TECHNICIANS  
(BREATH SAMPLES)**

NOTICE IS HEREBY GIVEN that pursuant to subsection 254 (1) of the Criminal Code (Canada), the Honourable Mike Farnan, Solicitor General of Ontario, on the 23rd day of January 1991, designated the following persons as being qualified to operate the approved instruments known as the Breathalyzer® models 900 and 900A.

**NOMINATION DE TECHNICIENS QUALIFIES  
(ECHANTILLONS D'HALEINE)**

L'AVIS PRESENT est donné qu'en vertu du paragraphe 254 (1) du Code criminel du Canada, l'honorable Mike Farnan, Solliciteur Général de l'Ontario, le 23 janvier 1991, désigna les personnes suivants comme étant qualifiée pour manipuler les alcootests approuvés connus sous le nom de Breathalyzer® modele 900 et 900A.

Nancy L. Baumgart, Waterloo Regional Police Force; Kimberley S. Bulloch, Durham Regional Police Force; Andrew Cattrysse, London Police Force; Roberto Diluca, Windsor Police Force; T. Gregory Johnson, York Regional Police Force; Claudio Nizzero, Sudbury Regional Police Force; Colin Preddie, Peel Regional Police Force; Kenneth Rice, North Bay Police Force; David K. Shantz, Halton Regional Police Force; Warren M. Tough, Metropolitan Toronto Police Force; Mark D. Wright, Metropolitan Toronto Police Force; Richard T. Cadilha, Ontario Provincial Police Force; Maurice D. Carriere, Ontario Provincial Police Force; Brent O. Cecchini, Ontario Provincial Police Force; David Wayne Childs, Ontario Provincial Police Force; Steven Dickinson, Ontario Provincial Police Force; Walter Lima, Ontario Provincial Police Force; Daniel Joseph MacDonald, Ontario Provincial Police Force; Morgan McKinnon, Ontario Provincial Police Force; Guy J. Noel, Ontario Provincial Police Force; Teresa A. Patterson, Ontario Provincial Police Force; Bernard Philip, Ontario Provincial Police Force; Pierre P. Rancourt, Ontario Provincial Police Force; R. Glen Zavitz, Ontario Provincial Police Force; Raymond L. Marshall, Canadian Armed Forces.

(4599) 6

**MOTOR VEHICLE TRANSPORT ACT, 1987  
LOI DE 1987 SUR LES  
TRANSPORTS ROUTIERS****MOTOR VEHICLE TRANSPORT ACT, 1987,  
PART II TRUCK APPLICATIONS:**

The following are applications for extra-provincial truck transport operating licences under Part II of the Motor Vehicle Transport Act, 1987, S.C. 1987, Chapter 35. These Applicants have been found to meet the fitness requirements pursuant to Section 8(2) of that Act and the provincial transport board for Ontario proposes to issue the licences if no objection is served on the Applicant and filed with the Registrar of Motor Vehicles with the prescribed filing fee, within twenty-nine days of this publication.

**EXTRA-PROVINCIAL APPLICATIONS:**

**NOTE:** Where the application is for a licence other than a corridor operating authority, an interested person who serves and files an objection must also provide the Ontario Highway Transport Board with written evidence, within thirty-nine days of this publication that satisfies that Board that, in the absence of evidence to the contrary, the operation of the undertaking in respect of which the licence is sought would likely be detrimental to the public interest.

\* Indicates a person who has applied for licences under both Part II and Part III of the Motor Vehicle Transport Act, 1987.

The following applicants have applied for Authority to offer a transportation service as detailed below for extra-provincial movement, between (00000) POINTS IN ONTARIO and the:

**ONTARIO/QUEBEC, ONTARIO/MANITOBA, ONTARIO/USA  
BORDER CROSSINGS:**

**\*A. P. TRANSPOR INC** 103055775  
890 COURTLAND AVE  
KITCHENER, ONTARIO  
N2C 1K5  
GENERAL FREIGHT. Original

**\*ACCU-TRANS DISTRIBUTION SYSTEMS INC.** 103986730  
2336 ARNOLD CRES  
BURLINGTON, ONTARIO  
L7P 4G3  
INTERMEDIARY. Amend

**\*ALL CANADA MOVERS LTD** 096631327  
6019 RUSSELL RD  
CARLSBAD SPRINGS, ONTARIO  
K0A 1K0  
GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (20101) OTTAWA C. Original

**\*BIMBAT, ELIEZER** 090225479  
141 CLARK AVE EAST UN36  
THORNHILL, ONTARIO  
L3T 4P4  
SINGLE SOURCE; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (01000) METROPOLITAN TORONTO R. Original

**\*BROWN CUSTOMS BROKERAGE LIMITED** 000396247  
110 SYDNEY ST  
CORNWALL, ONTARIO  
K6H 3H2  
GENERAL FREIGHT. Original

**\*D & D MCGREGOR LUMBER LTD** 050987885  
L3 C10 RR OF LEEDS-LANS TP  
LYNDHURST, ONTARIO  
K0E 1N0  
GENERAL FREIGHT. Original

**D & K TRANSPORT INC.** 104659950  
419 LEHMAN AVE  
BOWLING GREEN OHIO, USA  
43402  
GENERAL FREIGHT; TANK. Original

**\*DESCOTEAUX, MARCEL** 101428668  
1344 PIETTE  
JOLIETTE QC  
J6E 3V8  
SINGLE SOURCE. Original

**\*DHALIWAL, KULWANT, S** 077500868  
25 ABELL DR  
BRAMPTON, ONTARIO  
L6V 2W1  
SINGLE SOURCE; GENERAL FREIGHT. Original

**\*DHILLON, PARMINDER, S** 087246347  
4460 TUCANA CRT AP1711  
MISSISSAUGA, ONTARIO  
L5R 3K9  
GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (21000) PEEL R. Original

**\*DICKINSON, LAWRIE, E** 020163652  
72 KINGHAM DR  
ACTON (HALTON), ONTARIO  
L7J 1S4  
SINGLE SOURCE; GENERAL FREIGHT. Original

<b>*DUFRESNE, FRANCOIS</b> 654 BOUL DUSSAULT ST-MARC CARR QUEBEC G0A 4B0 GENERAL FREIGHT.	<b>104314806</b> Original	<b>*MARTIN, IBRA</b> L6 C109 WOOLWICH TP ELMIRA R4, ONTARIO N3B 2Z3 OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT; TANK.	<b>056204741</b> Original
<b>*ENTREPRISE MAINVILLE LESSARD INC.</b> 970 12E AVENUE THETFORD MINES QC G6G 1X3 SINGLE SOURCE; GENERAL FREIGHT.	<b>104573576</b> Original	<b>*MARTIN, PAUL, A</b> L87 C88 RD77 WOOLWICH TP CAMBRIDGE RR32, ONTARIO N3H 4R7 GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (25101) CAM- BRIDGE C.	<b>021459694</b> Original
<b>*FADER, ROY, ROBERT</b> 974 HWY-17E WAHNAPIAE R1, ONTARIO P0M 3C0 GENERAL FREIGHT.	<b>058948412</b> Original	<b>*MARTIN SIMARD TRANSPORT INC.</b> 275 STFRANCOIS O STFRANCOIS MONTMAGNY QU G0R 3A0 GENERAL FREIGHT.	<b>104660936</b> Original
<b>*GEORGE RITCHIE LIMITED</b> I.8 C3 RUSSELL TWP RUSSELL RR3, ONTARIO K0A 3B0 GENERAL FREIGHT; TANK.	<b>035962274</b> Amend	<b>*MATTHEWS, SYLVIA, MAE</b> 30 ELM ST GANANOQUE, ONTARIO K7G 2S7 GENERAL FREIGHT.	<b>068268531</b> Original
<b>*HARKNESS, GARY, ROSS</b> 81 PATRICK ST E BX721 WINGHAM, ONTARIO N0G 2W0 GENERAL FREIGHT.	<b>047734545</b> Original	<b>*MCKNIGHT, MURRAY, A</b> 72 CLOVERDALE DR BRAMALEA, ONTARIO L6T 2T6 GENERAL FREIGHT.	<b>069535776</b> Original
<b>*HOCKLEY, WALTER, HARRY</b> 88 DUNDAS ST E PARIS, ONTARIO N3L 3H5 GENERAL FREIGHT.	<b>055559498</b> Original	<b>*MILLS, BRUCE, M</b> 332 WATER ST BX266 THESSALON, ONTARIO P0R 1L0 SINGLE SOURCE; GENERAL FREIGHT.	<b>013932351</b> Original
<b>*IMEX TRANSPORT INC.</b> 26 RUE DUCHESNE METABETCHOUAN QC G0W 2A0 GENERAL FREIGHT.	<b>104707048</b> Original	<b>*NORSEMAN CARTAGE LTD.</b> 1927 PAGEHURST COURT MISSISSAUGA, ONTARIO L4X 1Y8 GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (21000) PEEL R.	<b>104659347</b> Original
<b>*J. MEEK ENTERPRISES LTD.</b> 9800-190 ST SURREY BC V3T 4W2 GENERAL FREIGHT.	<b>104571792</b> Original	<b>PARKER M, GLORIA</b> 6330 14TH ST W 5 BRADENTON FLORIDA, USA 34207 GENERAL FREIGHT.	<b>104667728</b> Original
<b>*K.R. SLOAN INDUSTRIES INC.</b> RR-2 SITE-9 COMP-11 NORTH BAY, ONTARIO P1B 8G3 SINGLE SOURCE.	<b>104041732</b> Original	<b>*R. DENIS MECANIQUE INC.</b> 8730 MAURICE DUPLESSIS MONTREAL QUE H1E 3L1 OWNER DRIVER, exempt from Public Interest Test.	<b>104230973</b> Original
<b>*KEN'S TRANSFER INC.</b> LOT 16 MILBANK INDUSTRIAL PARK BOX 534 MILBANK SD, USA 57252 GENERAL FREIGHT.	<b>104645576</b> Original	<b>*RAI, SATHAM, S</b> 3700 MORNINGSTAR DR MISSISSAUGA, ONTARIO L4T 1Y6 OWNER DRIVER, exempt from Public Interest Test.	<b>077862911</b> Original
<b>*LES INDUSTRIES DU SILENCIEUX 2000 INC.</b> 6020 RUE MERIEL ST LEONARD QUE H1P 2X1 SINGLE SOURCE.	<b>104659520</b> Original	<b>*RALYCO INC.</b> 590 RANG ST-YVES ST-AIME QUEBEC J0G 1K0 SINGLE SOURCE.	<b>101710649</b> Original
<b>*MACH 1 TRUCKING LTD.</b> 741 GREENFIELD CR NEWMARKET (YORK), ONTARIO L3Y 3B2 GENERAL FREIGHT.	<b>104665538</b> Original	<b>*REBANDA TRANSPORTATION INC.</b> 4000 NORTH STATE ST UKIAH CALIFORNIA, USA 95482 GENERAL FREIGHT.	<b>104145465</b> Original
<b>*MANN, GURDIAL, S</b> 4 NEWPORT STREET BRAMPTON, ONTARIO L6S 4L9 OWNER DRIVER, exempt from Public Interest Test.	<b>091867394</b> Original		

<b>*RYAN, ROBERT, K</b> 50 BROOKHAVEN DR TORONTO, ONTARIO M6M 4N8 GENERAL FREIGHT.	<b>006827929</b> Original	<b>*TRANSPORT MICHEL CHARPENTIER INC.</b> 271 HAMEL BLACK LAKE QC G0N 1A0 SINGLE SOURCE; GENERAL FREIGHT.	<b>104574364</b> Original
<b>SCHULTZ, MICHAEL</b> 6427 RIDGE RD LOCKPORT NY, USA 14094 SINGLE SOURCE.	<b>104322996</b> Original	<b>*TRANSPORT N. ROUILLARD INC.</b> 480 AV JUPITER STE-MARIE QC G6E 1C2 SINGLE SOURCE.	<b>104684227</b> Original
<b>*SECTOR AIRLINES INC./LIGNES AERIENNES SECTOR INC.</b> ROUTE A6 CARGO MIRABEL QUE J7N 1C2 OWNER DRIVER, exempt from Public Interest Test.	<b>104660402</b> Original	<b>*TRANSPORT PIERRE PAUZE INC.</b> 2303 GONTHIER MONTREAL QUEBEC H1L 3V7 GENERAL FREIGHT.	<b>104657981</b> Original
<b>*SMOORE ENTERPRISES LTD</b> 82 WELLINGTON CRES SPRUCE GROVE ALBERTA T7X 1J8 GENERAL FREIGHT.	<b>104396948</b> Original	<b>*TRANSPORT REAL MENARD INC.</b> 79 MARTIN ST-PIE QUE J0H 1W0 OWNER DRIVER, exempt from Public Interest Test.	<b>104664775</b> Original
<b>*SPENCER J HAWKES INC</b> 225 ORENDA RD BRAMPTON, ONTARIO L6T 1E6 HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (21101) BRAMPTON C., (21102) MISSISSAUGA C.	<b>034090549</b> Amend	<b>*TRANSPORT SONIE INC.</b> 467 DES CEDRES VALLEE-JONCTION QC G0S 3J0 SINGLE SOURCE.	<b>104683913</b> Original
<b>*TEAM DISTRIBUTION INC.</b> 133 WESTERN AVE SCHOMBERG (YORK), ONTARIO L0G 1T0 INTERMEDIARY.	<b>104707061</b> Original	<b>*TRANSPORTS ERIC CARRIER INC.</b> 1900 RANG S E INVERNESS QC G0S 1K0 SINGLE SOURCE; GENERAL FREIGHT.	<b>104573877</b> Original
<b>*TRANSPORT BRUNO Fiset INC.</b> 395 RANG 8 LYSTER QC G0S 1V0 SINGLE SOURCE; GENERAL FREIGHT.	<b>104573343</b> Original	<b>*TRANSPORTS KENT MALO INC.</b> 3364 BREARD ST BROSSARD QUE J4Z 2E2 OWNER DRIVER, exempt from Public Interest Test.	<b>104652776</b> Original
<b>*TRANSPORT G THIBAUT INC</b> 429 RTE DES PIONNIERS LISLET-SUR-MER QUE G0R 2B0 GENERAL FREIGHT.	<b>081357073</b> Original	<b>*TRIPAR TRANSPORTATION INC</b> 75 THE EAST MALL STE 201 TORONTO, ONTARIO M8Z 1V6 INTERMEDIARY; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (10000) DURHAM R., (14000) HALTON R., (01000) METROPOLITAN TORONTO R., (21000) PEEL R., (27000) YORK R.	<b>049755561</b> Original
<b>*TRANSPORT G. TAINSH INC.</b> 97 4TH AVENUE VERDUN QC H4G 2X9 SINGLE SOURCE.	<b>104651294</b> Original	<b>TRUCKS FOR YOU INC.</b> 3303 NORTH 32ND MUSKOGEE OKLAHOMA, USA 74401 GENERAL FREIGHT.	<b>104651036</b> Original
<b>*TRANSPORT GILLES MAILHOT INC</b> 1739 ROUSSEAU PLESSISVILLE PQ G6L 2Z1 SINGLE SOURCE; GENERAL FREIGHT.	<b>086514883</b> Original	<b>*VIGNEAULT, ANDRE</b> 11 DES LILAS CP258 COTEAU DU LAC PQ J0P 1B0 GENERAL FREIGHT.	<b>080916001</b> Original
<b>*TRANSPORT JACQUES OLIVIER INC.</b> 988 RUE DUMAS ST JEAN CHRYSOSTOME QC G6Z 2T4 OWNER DRIVER, exempt from Public Interest Test.	<b>081496349</b> Original	<b>*VIRK, MAHESHINDER, S</b> 131 SIMMONS BLVD BRAMPTON, ONTARIO L6V 3X4 OWNER DRIVER, exempt from Public Interest Test.	<b>098259244</b> Original
<b>*TRANSPORT KLEN INC</b> 47 RUE MAILHOT PRINCEVILLE PQ G0P 1E0 SINGLE SOURCE; GENERAL FREIGHT.	<b>089313218</b> Original	<b>*VOLLETT, LARRY, R</b> 109 ELGIN ST BX 544 MOUNT FOREST, ONTARIO N0G 2L0 GENERAL FREIGHT; TANK.	<b>030552432</b> Original

<b>WCM TRANSPORT INC.</b> 9 HEMLOCK ST OXFORD MA, USA 01540 GENERAL FREIGHT.	<b>104651571</b> Original	<b>*851353 ONTARIO LIMITED</b> 490 THIRD ST UN 10 LONDON, ONTARIO N5V 4A2 GENERAL FREIGHT.	<b>099238732</b> Original
<b>WEBER, LURIA, M</b> 31849 PANSY LANDING ROAD DANBURY WI, USA 54830 GENERAL FREIGHT.	<b>104650758</b> Original	<b>*913746 ONTARIO INC</b> 300 INDUSTRIAL DRIVE CHATHAM, ONTARIO N7M 5K1 GENERAL FREIGHT.	<b>104652008</b> Original
<b>ZERBE, DENNIS</b> GRANGE RD BOX 2552 RD2 LEESPORT PA, USA 19533 GENERAL FREIGHT.	<b>102728085</b> Original	<b>ONTARIO/QUEBEC, ONTARIO/USA BORDER CROSSINGS:</b>	
<b>*146571 CANADA INC</b> L9 C9 DYMOND TP NEW LISKEARD R2, ONTARIO P0J 1P0 GENERAL FREIGHT.	<b>078978512</b> Original	<b>*MANOUSARIDIS, IOANIS</b> 816 ELLESMERE RD SCARBOROUGH, Ontario M1P 2W4 GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (01000) METROPOLITAN TORONTO R.	<b>082896029</b> Original
<b>*2171-2799 QUEBEC INC</b> 380 TAILLON MONTREAL QUEBEC H1L 4J1 SINGLE SOURCE.	<b>086369301</b> Original	<b>*RAFFOUL, JOSEPH/RAFFOUL, DANIEL, J</b> 12 GERRARD ST LEAMINGTON, ONTARIO N8H 1P2 GENERAL FREIGHT.	<b>095016382</b> Original
<b>*2434-0580 QUEBEC INC</b> 380 TAILLON MONTREAL QUEBEC H1L 4J1 SINGLE SOURCE.	<b>085675877</b> Original	<b>SMITH, CALVIN, L</b> RTE 360 BOX 99 HAYNESVILLE VIRGINIA, USA 22472 GENERAL FREIGHT.	<b>096803676</b> Original
<b>*2623-2199 QUEBEC INC.</b> 1444 WEBB STREET CHOMEDEY LAVAL QUEBEC H3W 3S1 GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee only maintains a place or places of business in locations other than the Province of Ontario.	<b>104659071</b> Original	<b>SUMMERFORD TRUCK LINE INC.</b> HIGHWAY 84 EAST BOX 487 ASHFORD ALABAMA, USA 36312 GENERAL FREIGHT.	<b>104659427</b> Original
<b>*2743-2921 QUEBEC INC.</b> 5295 DE LA FERME GRANTHAM OUEST QC J2E 1J8 SINGLE SOURCE; GENERAL FREIGHT.	<b>104572150</b> Original	<b>*2755-5085 QUEBEC INC.</b> 34 MOSELLE AYLMER QUEBEC J9H 5H2 GENERAL FREIGHT.	<b>104125190</b> Original
<b>*2844-3554 QUEBEC INC.</b> 339 ST-PIERRE ST-CONSTANT QUEBEC J5A 2E7 GENERAL FREIGHT.	<b>104658848</b> Original	<b>ONTARIO/MANITOBA, ONTARIO/USA BORDER CROSSINGS:</b>	
<b>*582515 ONTARIO INC</b> 5 PAUL WILLIAM GATE BRAMPTON, ONTARIO L6V 4C9 SINGLE SOURCE; GENERAL FREIGHT.	<b>080073005</b> Original	<b>O.J. VENTURES LTD.</b> 23425 TAMARACK LANE MAPLE RIDGE B C V2X 7E6 GENERAL FREIGHT.	<b>104659507</b> Original
<b>*621908 ONTARIO INC</b> L1 C18 GREY WALTON, ONTARIO N0K 1Z0 TANK.	<b>079185177</b> Amend	<b>*WOGENSTAHL'S CANADIAN RESORT &amp; TRL PRK LTD</b> H K 223 CAMP ROBINSON RD VERMILLION BAY, ONTARIO P0V 2V0 GENERAL FREIGHT; TANK.	<b>069175188</b> Original
<b>*700372 ONTARIO LTD</b> 216 BLACKTHORN AVE TORONTO, ONTARIO M6N 3H8 SINGLE SOURCE; GENERAL FREIGHT.	<b>086262583</b> Original	<b>ONTARIO/QUEBEC BORDER CROSSINGS:</b>	
		<b>*CHAPEAU TRANSPORT INC.</b> CP181 RR2 9 ROCHON ST. CHAPEAU QUEBEC J0X 1M0 GENERAL FREIGHT.	<b>103539794</b> Original
		<b>*DESCOTEUX, MARCEL</b> 1344 PIETTE JOLIETTE QC J6E 3V8 GENERAL FREIGHT; TANK.	<b>101428668</b> Original

**\*SOCIETE DE DESIGN INDUSTRIEL LE MONIER INC**  
4587 NOTRE DAME  
TROIS-RIVIERES OUEST, QC  
G9A 4A4  
GENERAL FREIGHT.

**103881747**  
Original

**\*TRANS ART TRANSPORT AND STORAGE SERVICES INC.**  
1380 BARRE ST  
MONTREAL QC  
H3C 1N4  
GENERAL FREIGHT.

**104690222**  
Original

**\*TRANSPORT G. TAINSH INC.**  
97 4TH AVENUE  
VERDUN QC  
H4G 2X9  
GENERAL FREIGHT.

**104651294**  
Original

#### ONTARIO/USA BORDER CROSSINGS:

**\*BLACK, DAVID, J**  
2730 OILLE RD  
ST CATHARINES, ONTARIO  
L2R 6P7  
SINGLE SOURCE; GENERAL FREIGHT; TANK.

**050463592**  
Original

**MERRITT, GARY, L**  
RD2 BOX 117  
SUSQUEHANNA PENNSYLVANIA USA, USA  
18847  
GENERAL FREIGHT.

**104664867**  
Original

**ROBERT A SLOAN INC**  
GUM TREE ROAD BOX 202  
COCHRANVILLE PA, USA  
19330  
GENERAL FREIGHT.

**103571862**  
Original

**\*SCAGLIONE, CARMELO**  
36 RAMSEY ST  
ST CATHARINES, ONTARIO  
L2N 2K1  
GENERAL FREIGHT.

**060922631**  
Amend

**\*STILTZ, LOIS, M**  
5128 THISTLE ST  
OIL CITY, ONTARIO  
N0N 1N0  
GENERAL FREIGHT.

**009120929**  
Original

## MOTOR VEHICLE TRANSPORT ACT, 1987 LOI DE 1987 SUR LES TRANSPORTS ROUTIERS

#### INTRA-PROVINCIAL TRUCK APPLICATIONS:

The following are applications for operating licences under Part III of the Motor Vehicle Transport Act, 1987, S.C. 1987, Chapter 35. These applicants have been found to meet the fitness requirement in like manner to section 6 of the Truck Transportation Act, 1988, S.O. 1988, Chapter 64, and the provincial transport board for Ontario proposes to issue the licences unless a person, within thirty days of this publication, serves on the Applicant and files with the Registrar of Motor Vehicles with the prescribed filing fee, a written request for a fitness hearing or a public interest test in like manner to Subsection 7(4) of the Truck Transportation Act, 1988, S.O. 1988, Chapter 64.

**NOTE:** A person who requests a public interest hearing must, within thirty-nine days of this publication, serve on the Ontario Highway Transport Board a document that makes out a written case to the Board that the granting of the operating authority applied for would be likely to have a significant detrimental effect on the public interest using the criteria set out in subsection 10(1) of the Truck Transportation Act, 1988, S.O. 1988, Chapter 64, and that the request is not frivolously made.

\* Indicates a person who has applied for licences under both Part II and Part III of the Motor Vehicle Transport Act, 1987.

The following applicants have applied for Authority to offer a transportation service as detailed below between (00000) POINTS IN ONTARIO:

**\*A. P. TRANSPOR INC** **103055775**  
890 COURTLAND AV E  
KITCHENER, ONTARIO  
N2C 1K5  
GENERAL FREIGHT. **Original**

**\*ACCU-TRANS DISTRIBUTION SYSTEMS INC.** **103986730**  
2336 ARNOLD CRES  
BURLINGTON, ONTARIO  
L7P 4G3  
INTERMEDIARY. **Amend**

**AL MARTIN & SONS ENT LTD** **083481817**  
L2 HWY 808 CENT PAT BX470  
PICKLE LAKE, ONTARIO  
P0V 3A0  
GENERAL FREIGHT. **Original**

**\*ALL CANADA MOVERS LTD** **096631327**  
6019 RUSSELL RD  
CARLSBAD SPRINGS, ONTARIO  
K0A 1K0  
GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (20101) OTTAWA C. **Original**

**\*BIMBAT, ELIEZER** **090225479**  
141 CLARK AVE EAST UN36  
THORNHILL, ONTARIO  
L3T 4P4  
SINGLE SOURCE; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (01000) METROPOLITAN TORONTO R. **Original**

**\*BLACK, DAVID, J** **050463592**  
2730 OILLE RD  
ST CATHARINES, ONTARIO  
L2R 6P7  
SINGLE SOURCE; GENERAL FREIGHT; TANK. **Original**

**\*BROWN CUSTOMS BROKERAGE LIMITED** **000396247**  
110 SYDNEY ST  
CORNWALL, ONTARIO  
K6H 3H2  
GENERAL FREIGHT. **Original**

**\*CHAPEAU TRANSPORT INC.** **103539794**  
CP181 RR2 9 ROCHON ST.  
CHAPEAU QUEBEC  
J0X 1M0  
GENERAL FREIGHT. **Original**

**\*D & D MCGREGOR LUMBER LTD** **050987885**  
L3 C10 RR OF LEEDS-LANS TP  
LYNDHURST, ONTARIO  
K0E 1N0  
GENERAL FREIGHT. **Original**

**\*DESCOTEAUX, MARCEL** **101428668**  
1344 PIETTE  
JOLIETTE QC  
J6E 3V8  
SINGLE SOURCE; GENERAL FREIGHT; TANK. **Original**

<b>*DHALIWAL, KULWANT, S</b> 25 ABELL DR BRAMPTON, ONTARIO L6V 2W1 SINGLE SOURCE; GENERAL FREIGHT.	<b>077500868</b> Original	<b>*KEN'S TRANSFER INC.</b> LOT 16 MILBANK INDUSTRIAL PARK BOX 534 MILBANK SD, USA 57252 GENERAL FREIGHT.	<b>104645576</b> Original
<b>*DHILLON, PARMINDER, S</b> 4460 TUCANA CRT AP1711 MISSISSAUGA, ONTARIO L5R 3K9 GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (21000) PEEL R.	<b>087246347</b> Original	<b>L'EXPRESS DU MIDI INC</b> 1525 1RE AVENUE STE-CATHERINE QC J0L 1E0 GENERAL FREIGHT.	<b>077309889</b> Amend
<b>*DICKINSON, LAWRIE, E</b> 72 KINGHAM DR ACTON (HALTON), ONTARIO L7J 1S4 SINGLE SOURCE; GENERAL FREIGHT.	<b>020163652</b> Original	<b>*LES INDUSTRIES DU SILENCIEUX 2000 INC.</b> 6020 RUE MERIEL ST LEONARD QUE H1P 2X1 SINGLE SOURCE.	<b>104659520</b> Original
<b>*DUFRESNE, FRANCOIS</b> 654 BOUL DUSSAULT ST-MARC CARR QUEBEC G0A 4B0 GENERAL FREIGHT.	<b>104314806</b> Original	<b>LES TRANSPORTS AUDEC INC.</b> 1485 1ERE AVE STE-CATHERINE QUEBEC J0L 1E0 GENERAL FREIGHT.	<b>093121567</b> Amend
<b>*ENTREPRISE MAINVILLE LESSARD INC.</b> 970 12E AVENUE THETFORD MINES QC G6G 1X3 SINGLE SOURCE; GENERAL FREIGHT.	<b>104573576</b> Original	<b>*MACH 1 TRUCKING LTD.</b> 741 GREENFIELD CR NEWMARKET (YORK), ONTARIO L3Y 3B2 GENERAL FREIGHT.	<b>104665538</b> Original
<b>*FADER, ROY, ROBERT</b> 974 HWY-17E WAHNAPIAE R1, ONTARIO P0M 3C0 GENERAL FREIGHT.	<b>058948412</b> Original	<b>*MANN, GURDIAL, S</b> 4 NEWPORT STREET BRAMPTON, ONTARIO L6S 4L9 OWNER DRIVER, exempt from Public Interest Test.	<b>091867394</b> Original
<b>*GEORGE RITCHIE LIMITED</b> L8 C3 RUSSELL TWP RUSSELL RR3, ONTARIO K0A 3B0 GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (67611) RUSSELL TP.	<b>035962274</b> Amend	<b>*MANOUSARIDIS, IOANIS</b> 816 ELLESMERE RD SCARBOROUGH, Ontario M1P 2W4 GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (01000) METROPOLITAN TORONTO R.	<b>082896029</b> Original
<b>*HARKNESS, GARY, ROSS</b> 81 PATRICK ST E BX721 WINGHAM, ONTARIO N0G 2W0 GENERAL FREIGHT.	<b>047734545</b> Original	<b>*MARTIN, IBRA</b> L6 C109 WOOLWICH TP ELMIRA R4, ONTARIO N3B 2Z3 OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT; TANK.	<b>056204741</b> Original
<b>*HOCKLEY, WALTER, HARRY</b> 88 DUNDAS ST E PARIS, ONTARIO N3L 3H5 GENERAL FREIGHT.	<b>055559498</b> Original	<b>*MARTIN, PAUL, A</b> L87 C88 RD77 WOOLWICH TP CAMBRIDGE RR32, ONTARIO N3H 4R7 GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (25101) CAMBRIDGE C.	<b>021459694</b> Original
<b>*IMEX TRANSPORT INC.</b> 26 RUE DUCHESNE METABETCHOUAN QC G0W 2A0 GENERAL FREIGHT.	<b>104707048</b> Original	<b>*MARTIN SIMARD TRANSPORT INC.</b> 275 STFRANCOIS O STFRANCOIS MONTMAGNY QU G0R 3A0 GENERAL FREIGHT.	<b>104660936</b> Original
<b>*J. MEEK ENTERPRISES LTD.</b> 9800-190 ST SURREY BC V3T 4W2 GENERAL FREIGHT.	<b>104571792</b> Original	<b>*MATTHEWS, SYLVIA, MAE</b> 30 ELM ST GANANOQUE, ONTARIO K7G 2S7 GENERAL FREIGHT.	<b>068268531</b> Original
<b>*K.R. SLOAN INDUSTRIES INC.</b> RR-2 SITE-9 COMP-11 NORTH BAY, ONTARIO P1B 8G3 SINGLE SOURCE.	<b>104041732</b> Original	<b>*MCKNIGHT, MURRAY, A</b> 72 CLOVERDALE DR BRAMALEA, ONTARIO L6T 2T6 GENERAL FREIGHT.	<b>069535776</b> Original

<b>*MILLS, BRUCE, M</b> 332 WATER ST BX266 THESSALON, ONTARIO P0R 1L0 SINGLE SOURCE; GENERAL FREIGHT.	<b>013932351</b> Original	<b>*SPENCER J HAWKES INC</b> 225 ORENDA RD BRAMPTON, ONTARIO L6T 1E6 HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (21101) BRAMPTON C, (21102) MISSISSAUGA C.	<b>034090549</b> Amend
<b>*NORSEMAN CARTAGE LTD.</b> 1927 PAGEHURST COURT MISSISSAUGA, ONTARIO L4X 1Y8 GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (21000) PEEL R.	<b>104659347</b> Original	<b>*STILTZ, LOIS, M</b> 5128 THISTLE ST OIL CITY, ONTARIO N0N 1N0 GENERAL FREIGHT.	<b>009120929</b> Original
<b>*R. DENIS MECANIQUE INC.</b> 8730 MAURICE DUPLESSIS MONTREAL QUE H1E 3L1 OWNER DRIVER, exempt from Public Interest Test.	<b>104230973</b> Original	<b>*TEAM DISTRIBUTION INC.</b> 133 WESTERN AVE SCHOMBERG (YORK), ONTARIO L0G 1T0 INTERMEDIARY; GENERAL FREIGHT.	<b>104707061</b> Original
<b>*RAFFOUL, JOSEPH/RAFFOUL, DANIEL, J</b> 12 GERRARD ST LEAMINGTON, ONTARIO N8H 1P2 GENERAL FREIGHT.	<b>095016382</b> Original	<b>*TRANS ART TRANSPORT AND STORAGE SERVICES INC.</b> 1380 BARRE ST MONTREAL QC H3C 1N4 GENERAL FREIGHT.	<b>104690222</b> Original
<b>*RAI, SATHAM, S</b> 3700 MORNINGSTAR DR MISSISSAUGA, ONTARIO L4T 1Y6 OWNER DRIVER, exempt from Public Interest Test.	<b>077862911</b> Original	<b>*TRANSPORT BRUNO Fiset INC.</b> 395 RANG 8 LYSTER QC G0S 1V0 SINGLE SOURCE; GENERAL FREIGHT.	<b>104573343</b> Original
<b>*RALYCO INC.</b> 590 RANG ST-YVES ST-AIME QUEBEC J0G 1K0 SINGLE SOURCE.	<b>101710649</b> Original	<b>*TRANSPORT G THIBAUT INC</b> 429 RTE DES PIONNIERS LISLET-SUR-MER QUE G0R 2B0 GENERAL FREIGHT.	<b>081357073</b> Original
<b>*REBANDA TRANSPORTATION INC.</b> 4000 NORTH STATE ST UKIAH CALIFORNIA, USA 95482 GENERAL FREIGHT.	<b>104145465</b> Original	<b>*TRANSPORT G. TAINSH INC.</b> 97 4TH AVENUE VERDUN QC H4G 2X9 SINGLE SOURCE; GENERAL FREIGHT.	<b>104651294</b> Original
<b>*RYAN, ROBERT, K</b> 50 BROOKHAVEN DR TORONTO, ONTARIO M6M 4N8 GENERAL FREIGHT.	<b>006827929</b> Original	<b>*TRANSPORT GILLES MAILHOT INC</b> 1739 ROUSSEAU PLESSISVILLE PQ G6L 2Z1 SINGLE SOURCE; GENERAL FREIGHT.	<b>086514883</b> Original
<b>*SCAGLIONE, CARMELO</b> 35 RAMSEY ST ST CATHARINES, ONTARIO L2N 2K1 GENERAL FREIGHT.	<b>060922631</b> Amend	<b>*TRANSPORT JACQUES OLIVIER INC.</b> 988 RUE DUMAS ST JEAN CHRYSOSTOME QC G6Z 2T4 OWNER DRIVER, exempt from Public Interest Test.	<b>081496349</b> Original
<b>*SECTOR AIRLINES INC./LIGNES AERIENNES SECTOR INC.</b> ROUTE A6 CARGO MIRABEL QUE J7N 1C2 OWNER DRIVER, exempt from Public Interest Test.	<b>104660402</b> Original	<b>*TRANSPORT KLEN INC</b> 47 RUE MAILHOT PRINCEVILLE PQ G0P 1E0 SINGLE SOURCE; GENERAL FREIGHT.	<b>089313218</b> Original
<b>*SMOORE ENTERPRISES LTD</b> 82 WELLINGTON CRES SPRUCE GROVE ALBERTA T7X 1J8 GENERAL FREIGHT.	<b>104396948</b> Original	<b>*TRANSPORT MICHEL CHARPENTIER INC.</b> 271 HAMEL BLACK LAKE QC G0N 1A0 SINGLE SOURCE; GENERAL FREIGHT.	<b>104574364</b> Original
<b>*SOCIETE DE DESIGN INDUSTRIEL LE MONIER INC</b> 4587 NOTRE DAME TR-RIVIERES OUEST QUEBEC G9A 4A4 GENERAL FREIGHT.	<b>103881747</b> Original	<b>*TRANSPORT N. ROUILLARD INC.</b> 480 AV JUPITER STE-MARIE QC G6E 1C2 SINGLE SOURCE.	<b>104684227</b> Original

<b>*TRANSPORT PIERRE PAUZE INC.</b> 2303 GONTHIER MONTREAL QUEBEC H1L 3V7 GENERAL FREIGHT.	<b>104657981</b> Original	<b>*2434-0580 QUEBEC INC</b> 380 TAILLON MONTREAL QUEBEC H1L 4J1 SINGLE SOURCE.	<b>085675877</b> Original
<b>*TRANSPORT REAL MENARD INC.</b> 79 MARTIN ST-PIE QUE J0H 1W0 OWNER DRIVER, exempt from Public Interest Test.	<b>104664775</b> Original	<b>*2623-2199 QUEBEC INC.</b> 1444 WEBB STREET CHOMEDEY LAVAL QUEBEC H3W 3S1 GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee only maintains a place or places of business in locations other than the Province of Ontario.	<b>104659071</b> Original
<b>*TRANSPORT SONIE INC.</b> 467 DES CEDRES VALLEE-JONCTION QC G0S 3J0 SINGLE SOURCE.	<b>104683913</b> Original	<b>*2743-2921 QUEBEC INC.</b> 5295 DE LA FERME GRANTHAM OUEST QC J2E 1J8 SINGLE SOURCE; GENERAL FREIGHT.	<b>104572150</b> Original
<b>*TRANSPORTS ERIC CARRIER INC.</b> 1900 RANG S E INVERNESS QC G0S 1K0 SINGLE SOURCE; GENERAL FREIGHT.	<b>104573877</b> Original	<b>*2755-5085 QUEBEC INC.</b> 34 MOSELLE AYLMER QUEBEC J9H 5H2 GENERAL FREIGHT.	<b>104125190</b> Original
<b>*TRANSPORTS KENT MALO INC.</b> 3364 BREARD ST BROSSARD QUE J4Z 2E2 OWNER DRIVER, exempt from Public Interest Test.	<b>104652776</b> Original	<b>*2844-3554 QUEBEC INC.</b> 339 ST-PIERRE ST-CONSTANT QUEBEC J5A 2E7 GENERAL FREIGHT.	<b>104658848</b> Original
<b>*TRIPAR TRANSPORTATION INC</b> 75 THE EAST MALL STE 201 TORONTO, ONTARIO M8Z 1V6 INTERMEDIARY; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (10000) DURHAM R, (14000) HALTON R, (01000) METROPOLITAN TORONTO R, (21000) PEEL R, (27000) YORK R.	<b>049755561</b> Original	<b>*582515 ONTARIO INC</b> 5 PAUL WILLIAM GATE BRAMPTON, ONTARIO L6V 4C9 SINGLE SOURCE; GENERAL FREIGHT.	<b>080073005</b> Original
<b>*VIGNEAULT, ANDRE</b> 11 DES LILAS CP258 COTEAU DU LAC PQ J0P 1B0 GENERAL FREIGHT.	<b>080916001</b> Original	<b>*621908 ONTARIO INC</b> L1 C18 GREY WALTON, ONTARIO N0K 1Z0 TANK.	<b>079185177</b> Amend
<b>*VIRK, MAHESHINDER, S</b> 131 SIMMONS BLVD BRAMPTON, ONTARIO L6V 3X4 OWNER DRIVER, exempt from Public Interest Test.	<b>098259244</b> Original	<b>*700372 ONTARIO LTD</b> 216 BLACKTHORN AVE TORONTO, ONTARIO M6N 3H8 SINGLE SOURCE; GENERAL FREIGHT.	<b>086262583</b> Original
<b>*VOLLETT, LARRY, R</b> 109 ELGIN ST BX 544 MOUNT FOREST, ONTARIO N0G 2L0 GENERAL FREIGHT; TANK.	<b>030552432</b> Original	<b>*851353 ONTARIO LIMITED</b> 490 THIRD ST UN 10 LONDON, ONTARIO N5V 4A2 GENERAL FREIGHT.	<b>099238732</b> Original
<b>*WOGENSTAHL'S CANADIAN RESORT &amp; TRL PRK LTD</b> H K 223 CAMP ROBINSON RD VERMILLION BAY, ONTARIO P0V 2V0 GENERAL FREIGHT; TANK.	<b>069175188</b> Original	<b>*913746 ONTARIO INC</b> 300 INDUSTRIAL DRIVE CHATHAM, ONTARIO N7M 5K1 GENERAL FREIGHT.	<b>104652008</b> Original
<b>*146571 CANADA INC</b> L9 C9 DYMOND TP NEW LISKEARD R2, ONTARIO P0J 1P0 GENERAL FREIGHT.	<b>078978512</b> Original	<b>CORRIDOR APPLICATIONS:</b>	
<b>*2171-2799 QUEBEC INC</b> 380 TAILLON MONTREAL QUEBEC H1L 4J1 SINGLE SOURCE.	<b>086369301</b> Original	<b>NOTE:</b> The Motor Vehicle Transport Act, 1987, Regulations SOR 1987-1026, section 9 provides that a corridor operation is exempt from the application of subsections 8(3) to (5) of the Act (public interest test).	

The following applicants have applied for Authority to offer a transportation service through Ontario, provided there is no pickup or delivery in Ontario, utilizing the appropriate border crossings:

**ONTARIO/QUEBEC, ONTARIO/MANITOBA, ONTARIO/USA  
BORDER CROSSINGS:**

**ALL CANADA MOVERS LTD** **096631327**  
6019 RUSSELL RD Original  
CARLSBAD SPRINGS, ONTARIO  
K0A 1K0  
GENERAL FREIGHT; HOUSEHOLD GOODS.

**BIMBAT, ELIEZER** **090225479**  
141 CLARK AVE EAST UN36 Original  
THORNHILL, ONTARIO  
L3T 4P4  
GENERAL FREIGHT; TANK; HOUSEHOLD GOODS.

**BROWN CUSTOMS BROKERAGE LIMITED** **000396247**  
110 SYDNEY ST Original  
CORNWALL, ONTARIO  
K6H 3H2  
GENERAL FREIGHT.

**D & K TRANSPORT INC.** **104659950**  
419 LEHMAN AVE Original  
BOWLING GREEN OHIO, USA  
43402  
GENERAL FREIGHT; TANK.

**ENTREPRISE MAINVILLE LESSARD INC.** **104573576**  
970 12E AVENUE Original  
THETFORD MINES QC  
G6G 1X3  
GENERAL FREIGHT.

**IMEX TRANSPORT INC.** **104707048**  
26 RUE DUCHESNE Original  
METABETCHOUAN QC  
G0W 2A0  
GENERAL FREIGHT.

**J. MEEK ENTERPRISES LTD.** **104571792**  
9800-190 ST Original  
SURREY BC  
V3T 4W2  
GENERAL FREIGHT.

**KEN'S TRANSFER INC.** **104645576**  
LOT 16 MILBANK INDUSTRIAL PARK BOX 534 Original  
MILBANK SD, USA  
57252  
GENERAL FREIGHT.

**MARTIN, IBRA** **056204741**  
L6 C109 WOOLWICH TP Original  
ELMIRA R4, ONTARIO  
N3B 2Z3  
GENERAL FREIGHT; TANK.

**MARTIN, PAUL, A** **021459694**  
L87 C88 RD77 WOOLWICH TP Original  
CAMBRIDGE RR32, ONTARIO  
N3H 4R7  
GENERAL FREIGHT; TANK; HOUSEHOLD GOODS.

**MARTIN SIMARD TRANSPORT INC.** **104660936**  
275 STFRANCOIS O Original  
STFRANCOIS MONTMAGNY QU  
G0R 3A0  
GENERAL FREIGHT.

**PARKER M, GLORIA** **104667728**  
6330 14TH ST W 5 Original  
BRADENTON FLORIDA, USA  
34207  
GENERAL FREIGHT.

**REBANDA TRANSPORTATION INC.** **104145465**  
4000 NORTH STATE ST Original  
UKIAH CALIFORNIA, USA  
95482  
GENERAL FREIGHT.

**SMOORE ENTERPRISES LTD** **104396948**  
82 WELLINGTON CRES Original  
SPRUCE GROVE ALBERTA  
T7X 1J8  
GENERAL FREIGHT.

**TRANSPORT BRUNO Fiset INC.** **104573343**  
395 RANG 8 Original  
LYSTER QC  
G0S 1V0  
GENERAL FREIGHT.

**TRANSPORT G THIBAUT INC** **081357073**  
429 RTE DES PIONNIERS Original  
LISLET-SUR-MER QUE  
G0R 2B0  
GENERAL FREIGHT.

**TRANSPORT GILLES MAILHOT INC** **086514883**  
1739 ROUSSEAU Original  
PLESSISVILLE PQ  
G6L 2Z1  
GENERAL FREIGHT.

**TRANSPORT KLEN INC** **089313218**  
47 RUE MAILHOT Original  
PRINCEVILLE PQ  
G0P 1E0  
GENERAL FREIGHT.

**TRANSPORT MICHEL CHARPENTIER INC.** **104574364**  
271 HAMEL Original  
BLACK LAKE QC  
G0N 1A0  
GENERAL FREIGHT.

**TRANSPORT PIERRE PAUZE INC.** **104657981**  
2303 GONTHIER Original  
MONTREAL QUEBEC  
H1L 3V7  
GENERAL FREIGHT.

**TRANSPORTS ERIC CARRIER INC.** **104573877**  
1900 RANG S E Original  
INVERNESS QC  
G0S 1K0  
GENERAL FREIGHT.

**TRIPAR TRANSPORTATION INC** **049755561**  
75 THE EAST MALL STE 201 Original  
TORONTO, ONTARIO  
M8Z 1V6  
GENERAL FREIGHT; TANK; HOUSEHOLD GOODS.

**TRUCKS FOR YOU INC.** **104651036**  
3303 NORTH 32ND Original  
MUSKOGEE OKLAHOMA, USA  
74401  
GENERAL FREIGHT.

**VIGNEAULT, ANDRE** **080916001**  
11 DES LILAS CP258 Original  
COTEAU DU LAC PQ  
J0P 1B0  
GENERAL FREIGHT.

**WCM TRANSPORT INC.** **104651571**  
9 HEMLOCK ST Original  
OXFORD MA, USA  
01540  
GENERAL FREIGHT.

<b>2743-2921 QUEBEC INC.</b> 5295 DE LA FERME GRANTHAM OUEST QC J2E 1J8 GENERAL FREIGHT.	<b>104572150</b> Original	<b>CALDERWOOD, NATHANIEL</b> 397 VICTORIA ST TIMMINS, ONTARIO P4N 4S1 GENERAL FREIGHT.	<b>031347631</b> Amend
<b>2844-3554 QUEBEC INC.</b> 339 ST-PIERRE ST-CONSTANT QUEBEC J5A 2E7 GENERAL FREIGHT.	<b>104658848</b> Original	<b>COLLEE EXCAVATING &amp; TRUCKING INC.</b> 7863 GARNER RD NIAGARA FALLS, ONTARIO L2E 6S5 GENERAL FREIGHT.	<b>097869313</b> Original
<b>621908 ONTARIO INC</b> L1 C18 GREY WALTON, ONTARIO N0K 1Z0 GENERAL FREIGHT; TANK.	<b>079185177</b> Amend	<b>DALES, JOHN, P</b> L7 C5 ERAMOSA TP ROCKWOOD R1, ONTARIO N0B 2K0 GENERAL FREIGHT.	<b>054810118</b> Original
<b>700372 ONTARIO LTD</b> 216 BLACKTHORN AVE TORONTO, ONTARIO M6N 3H8 GENERAL FREIGHT.	<b>086262583</b> Original	<b>DESERT STORM TRUCKING INC.</b> 1340 DANFORTH RD SCARBOROUGH, ONTARIO M1J 1G2 SINGLE SOURCE; INTERMEDIARY; GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (14000) HALTON R, (01000) METROPOLITAN TORONTO R, (70000) SIMCOE CO.	<b>104659894</b> Original
<b>ONTARIO/QUEBEC, ONTARIO/USA BORDER CROSSINGS:</b>			
<b>SUMMERFORD TRUCK LINE INC.</b> HIGHWAY 84 EAST BOX 487 ASHFORD ALABAMA, USA 36312 GENERAL FREIGHT.	<b>104659427</b> Original	<b>DLANOD ENTERPRISES LTD</b> L6 C2 WAINWRIGHT TWP DRYDEN R3, ONTARIO P8N 3G2 BULK.	<b>024046045</b> Original
<b>WEBER, LURIA, M</b> 31849 PANSY LANDING ROAD DANBURY WI, USA 54830 GENERAL FREIGHT.	<b>104650758</b> Original	<b>DUNFORD, FLOYD, G</b> L16 C17 OTONABEE PETERBOROUGH R11, ONTARIO K9J 6Y3 SINGLE SOURCE.	<b>008665735</b> Amend
<b>ONTARIO/QUEBEC BORDER CROSSINGS:</b>			
<b>TRANSPORT G. TAINSH INC.</b> 97 4TH AVENUE VERDUN QC H4G 2X9 GENERAL FREIGHT.	<b>104651294</b> Original	<b>FEDELE, GREGORIO</b> 33 ZINNIA PL WOODBIDGE, ONTARIO L4L 6H2 GENERAL FREIGHT.	<b>051245838</b> Amend
<b>TRUCK TRANSPORTATION ACT, 1988</b> <b>LOI DE 1988 SUR LE CAMIONNAGE</b>			
The following are applications for operating licences under the Truck Transportation Act, 1988, S.O. 1988, Chapter 64. These Applicants have been found to meet the fitness requirements pursuant to section 6 of that Act and the Registrar of Motor Vehicles proposes to issue the licences unless a person, within thirty days of this publication, serves on the Applicant and files with the Registrar of Motor Vehicles with the prescribed filing fee, a written request for a fitness hearing or a public interest test pursuant to subsection 7(4) of the Act.			
The following applicants have applied for Authority to offer a transportation service as detailed below between (00000) POINTS IN ONTARIO:			
<b>BATES, ROBERT, S</b> 206 ALDER ST BOX 1863 ATIKOKAN, ONTARIO P0T 1C0 GENERAL FREIGHT.	<b>054231145</b> Amend	<b>FORD MACHINERY SERVICES (CAMBRIDGE) INC.</b> LOT17 CON9 FLAMBORO TWP CAMBRIDGE, ONTARIO N1R 5S7 GENERAL FREIGHT.	<b>104692448</b> Original
<b>BISHOP, GARRY, W</b> 64 MAIN ST KOMOKA, ONTARIO N0L 1R0 GENERAL FREIGHT; TANK.	<b>065903549</b> Original	<b>GODIN, ANTONIO, J</b> 54 HURON WK APT5 BOX 2047 MANITOUWADGE, ONTARIO P0T 2C0 BULK.	<b>047591923</b> Original
		<b>GUILLEMETTE, VITAL, J</b> L14 C12 E FERIS TP RR2 CORBEIL, ONTARIO P0H 1K0 GENERAL FREIGHT.	<b>036096421</b> Original
		<b>JAMES P RADE CONSTRUCTION LTD</b> 1720 CARL ST SARNIA, ONTARIO N7S 3R2 GENERAL FREIGHT.	<b>077578973</b> Original
		<b>JOHN C PRESTON LIMITED</b> 60 BLOOR ST W FLR8 TORONTO, ONTARIO M4W 3B8 GENERAL FREIGHT.	<b>063434585</b> Original

**MALONE, TERENCE, A** 077530977  
65 PAISLEY BL W AP-2212 Original  
MISSISSAUGA, ONTARIO  
L5B 1E5  
OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT.

**MASKO, KENNETH, JOHN** 009883195  
1162 ROSS BEACH Original  
BELLE RIVER R2, ONTARIO  
N0R 1A0  
OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT.

**MCCONNELL, CHARLES, A** 048539633  
144 BYRON AV Original  
KITCHENER, ONTARIO  
N2C 1Z8  
GENERAL FREIGHT.

**MCCOOL, BRIAN, J** 013792141  
100 CENTURY DR UN-11 Original  
ORANGEVILLE, ONTARIO  
L9W 4L2  
SINGLE SOURCE; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (43401) ORANGEVILLE T.

**MULLINGS, HOWARD, G** 086984819  
33 KING ST APT1107 Original  
WESTON, ONTARIO  
M9N 3R7  
OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT.

**N.R. RUSTAN LTD** 029550343  
4 SAULT RD BOX 668 Original  
MANITOUWADGE, ONTARIO  
P0T 2C0  
SINGLE SOURCE; GENERAL FREIGHT.

**PROCO TRANSPORTATION SERVICES INC.** 104659151  
224 LINCOLN ROAD Original  
WATERLOO, ONTARIO  
N2J 2P3  
GENERAL FREIGHT.

**R. DAMPIER TIMBER INC.** 074290290  
129 RAILWAY ST Original  
NIPIGON, ONTARIO  
P0T 2J0  
GENERAL FREIGHT.

**RUSSELL, RUPERT, O** 010682284  
25 SAN ROMANOWAY AP1802 Amend  
DOWNSVIEW, ONTARIO  
M3N 2Z1  
BULK.

**SANDHAM, MARION, E** 002025886  
L11 C2 NORFOLK TP Original  
TILLSONBURG R6, ONTARIO  
N4G 4G9  
GENERAL FREIGHT.

**SLEDZ, J-RICHARD** 010859414  
ADULLAM, BX3155, 1036 GOSHEN ST Original  
STROUD SS3, ONTARIO  
L0L 2M0  
GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (70605) INNISFIL TP.

**STAMP, GLEN, W** 049548824  
L7 C8 DYSART GEN DEL Original  
HALIBURTON, ONTARIO  
K0M 1S0  
SINGLE SOURCE; GENERAL FREIGHT.

**STARFIELD ROVER LTD.** 095449789  
875 WONDERLAND RD S APT-303 Original  
LONDON, ONTARIO  
N6K 2N4  
GENERAL FREIGHT.

**STEVENSON, REX** 022549279  
522 FRONT ST BX246 Original  
ATIKOKAN, ONTARIO  
P0T 1C0  
GENERAL FREIGHT.

**SZELIGA, RONALD** 097540488  
ROBIN HILL TR PK S123 BX10 R2 Original  
DRYDEN, ONTARIO  
P8N 2Y5  
GENERAL FREIGHT.

**TIESSEN, DANIEL, A** 080343439  
LOT 4 CON 8 MERSEA TWP Original  
R5 LEAMINGTON, ONTARIO  
N8H 3V8  
GENERAL FREIGHT; TANK.

**TUSTIN, DONALD, R** 053639012  
LOT 10 CON 2 STOUFFVILLE TWP. Original  
R3 STOUFFVILLE, ONTARIO  
L4A 7X4  
GENERAL FREIGHT.

**VOUGIS, GEORGE, A** 053721112  
770 AUGER AV Original  
SUDBURY, ONTARIO  
P3A 4T2  
GENERAL FREIGHT.

**W. B. TROTTER & SONS CONSTRUCTION LIMITED** 104369080  
L34 C2 ANSTRUTHER TP BX 77 Original  
APSLEY, ONTARIO  
K0L 1A0  
GENERAL FREIGHT.

**WEL-CHEM ENVIRONMENTAL SERVICES INC.** 104497016  
L7 C10 INNISFIL TWP R1 Original  
STROUD, ONTARIO  
L0L 2M0  
GENERAL FREIGHT; TANK.

**WOOD, ROY** 011423689  
141 CAMPBELL AVE E Original  
CAMPBELLVILLE, ONTARIO  
L0P 1B0  
GENERAL FREIGHT.

Michael T. Curtin  
Manager

## MOTOR VEHICLE TRANSPORT ACT, 1987

### PUBLIC VEHICLES ACT

#### BUS APPLICATIONS:

The following applications for operating licences under Part I of the Motor Vehicle Transport Act, 1987, S.C. 1987, Chapter 35, or the Public

Vehicles Act, R.S.O. 1980, Chapter 425 is published pursuant to Section 8, R.R.O. 1980, Regulation 716 under the Ontario Highway Transport Board Act, R.S.O. 1980, Chapter 338. Section 8 provides that the Board may dispose of these applications summarily if no objection is served and filed in the prescribed manner within twenty-nine days of this publication.

**MOTOR VEHICLE TRANSPORT ACT, 1987,  
PART I APPLICATIONS:**

**Autocar 5 Saisons Inc.**  
425 Fortin  
Vanier, Quebec  
G1M 2X8

44452

applies for an extra-provincial operating licence as follows:

“For the transportation of passengers on a chartered trip from:

Communaute Urbaine de Quebec  
Saint-Augustin-de-Desmaures  
Neuville  
Donnacona  
Cap-Sante  
Portneuf  
Deschambault  
Saint-Joseph-de-Deschambault  
Saint-Marc-des-Carriers  
Saint-Alban  
Saint-Casimir  
Saint-Ubalde  
Notre-Dame-de-Montauban  
Lac-aux-Sables  
Pointe-aux-Trembles

located in the Province of Quebec from the Ontario/Québec Border Crossings to points in Ontario and for the return of the same passengers on the same chartered trip to point of origin.”

**Beck Bus Transportation Corp.**  
R. R. # 1  
Box 768  
Mount Vernon, Illinois  
62864, U.S.A.

44453

applies for an extra-provincial operating licence as follows:

“For the transportation of passengers on a chartered trip from points in the State of Illinois located in the United States of America from the Ontario/U.S.A. Border Crossings to points in Ontario and return of the same passengers on the same chartered trip to point of origin.”

**Brewster Travel Inc.**  
800 N. High St.  
Columbus, Ohio  
43215 U.S.A.

44454

applies for an extra-provincial operating licence as follows:

“For the transportation of passengers on a chartered trip from points in the States of Ohio, Kentucky, Indiana and Pennsylvania located in the United States of America from the Ontario/U.S.A. border crossings to:

- (a) points in Ontario
- (b) in transit through Ontario to the:

Ontario/Manitoba  
Ontario/Quebec and  
Ontario/U.S.A. Border Crossings for furtherance

and return of the same passengers on the same chartered trip to point of origin.

**Ron Brown Buslines Ltd.**  
R. R. # 2  
Newington, Ontario  
K0C 1Y0

40814-B

applies for an extra-provincial operating licence, as follows:

“For the transportation of passengers who are students, staff or chaperons under the jurisdiction of the Stormont, Dundas and Glengarry County Board of Education on a chartered trip from points in the County of Stormont, Dundas and Glengarry to the Ontario/Quebec and Ontario/U.S.A. border crossings for furtherance and return of the same passengers on the same chartered trip to point or origin.

PROVIDED THAT:

1. chartered trips shall be restricted to school purposes only, and only for schools under the jurisdiction of the aforesaid School Board.
2. such chartered trip authority shall terminate automatically on the 31st day of December of any year if on that date a valid contract for home/school route service is not in effect with the said Board.
3. each chartered trip must be authorized in writing by the School Board or Schools involved in the chartered trip.
4. all vehicles shall be school buses as defined in Section 151 (a) (c) of the Highway Traffic Act, R.S.O. 1980, chapter 198

**Dworak Motor Company Inc.**  
o/a Dworak Bus Service  
1609 Center St.  
Kewaunee, Wisconsin  
54216 U.S.A.

44451

applies for an extra-provincial operating licence as follows:

“For the transportation of passengers on a chartered trip from points in the United States of America from the Ontario/U.S.A. Border Crossings to points in Ontario and return of the same passengers on the same chartered trip to point of origin.”

**Furhman Auto Body Ltd.**  
265 Front Street East  
Toronto, Ontario  
M5A 3S3

44146-C

applies for an extra-provincial operating licence as follows:

“For the transportation of passengers on a chartered trip from Metropolitan Toronto and points in the Regional Municipality of Peel to the:

Ontario/Manitoba  
Ontario/Quebec and  
Ontario/U.S.A. Border Crossings

for furtherance and return of the same passengers on the same chartered trip to point of origin.

PROVIDED that under the Public Vehicles Act and the Motor Vehicle Transport Act the licensee be restricted to the operation of a maximum of 2 class “A” public vehicles only, as defined in paragraph (a) (ii) of subsection 1 of section 9 of regulation 888 under the Public Vehicles Act, R.S.O. 1980, chapter 425 having a maximum seating capacity of 33 passengers exclusive of the driver.”

**Kindersley Minor Sports Association Inc.**  
Box 2487  
Kindersley, Saskatchewan  
S0L 1S0

44455

applies for an extra-provincial operating licence as follows:

"For the transportation of passengers on a chartered trip from points in the Province of Saskatchewan from the Ontario/Manitoba Border Crossings to points in Ontario and return of the same passengers on the same chartered trip to point of origin."

## PUBLIC VEHICLES ACT

### BUS APPLICATIONS:

The following applications for an operating licence under the Public Vehicles Act, R.S.O. 1980, Chapter 425 are published pursuant to Section 8, R.R.O. 1980, Regulation 716 under the Ontario Highway Transport Act, R.S.O. 1980, Chapter 338. Section 8 provides that the Board may dispose of these applications summarily if no objection is served and filed in the prescribed manner within twenty-nine days of this publication.

### Public Vehicles Act Applications:

**Corporation of The Town of Dryden** 44130-A  
30 Van Horne Avenue  
Dryden, Ontario  
P8N 2A7

applies for a public vehicle operating licence as follows:

1. For the transportation of passengers between the Town of Dryden on the one hand and Dryden Municipal Airport located in the Geographic Township of Zealand on the other hand.
2. For the transportation of passengers on a chartered trip from the Town of Dryden to:
  - i) The Dryden Sanitary Landfill site and recycling plant, located in the Geographic Township of Vanhorne;
  - ii) The Dryden Ski Hill located in the Geographic Township of Zealand

and return of the same passengers on the same chartered trip to point of origin.

**NOTE:** This replaces terms that appeared in the Ontario Gazette of February 2, 1991.

### TARIFF OF TOLLS

Town of Dryden - round trip: \$3.00 per person  
Ski Clubs - per hour: \$50.00."

**Nora Dillabough** 44402  
McArthurs Mills, Ontario  
KOL 2M0

applies for a public vehicle (school bus) operating licence, as follows:

"For the transportation of pupils for the Hastings County Board of Education between points in the County of Hastings and schools under the jurisdiction of the aforesaid School Board.

PROVIDED that charter privileges be restricted to school purposes and only for schools under the jurisdiction of the aforesaid School Board

**Furhman Auto Body Ltd.** 44146-B  
265 Front Street East  
Toronto, Ontario  
M5A 3S3

applies for a public vehicle operating licence as follows:

"For the transportation of passengers on a chartered trip from Metropolitan Toronto and points in the Regional Municipality of Peel.

PROVIDED that under the Public Vehicles Act and the Motor Vehicle Transport Act the licensee be restricted to the operation of a maximum of 2 class "A" public vehicles only, as defined in paragraph (a) (ii) of subsection 1 of section 9 of regulation 888 under the Public Vehicles Act, R.S.O. 1980, chapter 425 having a maximum seating capacity of 33 passengers exclusive of the driver."

### TARIFF OF TOLLS

\$110.00 hourly up to 10 hours.  
\$110.00 hourly over 10 hours  
KM charge: \$0.05 - \$0.084 per km per pass

On overnight trips a minimum charge of \$100.00 per night will be levied unless customer pays for accommodation.

### Equipment

Up to 3 coaches with maximum seating of 33, washroom and air condition.

Coaches on hand: 1) Neoplan 2) Champion

### ERRATUM

Vide Gazette dated January 26, 1991.

Notice Re: **Loyalist Bus Lines Ltd.** 44287-A  
25 O'Hara St.  
Belleville, Ontario  
K8P 4R9

Delete:

"applies for a public vehicle operating licence as follows:"

Substitute:

"applies for a public vehicle (school bus) operating licence as follows:

Felix D'Mello  
Board Secretary

## LOI DE 1987 SUR LES TRANSPORT ROUTIERS

## LOI SUR LES VÉHICULES DE TRANSPORT EN COMMUN

### DEMANDES D'EXPLOITATION D'UN AUTOBUS

Les demandes suivante de licence d'exploitation sont été présentées en vertu de la partie I de la Loi de 1987 sur les transports routiers, L.C. de 1987, chapitre 35 où de la Loi sur les véhicules de transport en commun, L.R.O. de 1980, chapitre 425 et été publiée en vertu de l'article 8, R.R.O. de 1980, régalement 716 pris en application de la Loi sur la Commission des transports routiers de l'Ontario, L.R.O. de 1980, chapitre 338. L'article 8 stipule que la Commission peut traiter ces demandes sans autre forme de procès si aucune objection n'est soulevée et déposée de la manière prescrite dans les vingt-neuf jours suivant la présente publication.

### DEMANDE PRÉSENTÉS EN VERTU DE LA PARTIE I DE LA LOI DE 1987 SUR LES TRANSPORTS ROUTIERS

**Autocar 5 Saisons Inc.** 44452  
425 Fortin  
Vanier, Québec  
G1M 2X8

présente une demande de permis de transport extra-provincial aux fins suivantes:

“Pour le transport nolisé aller-retour de passagers à partir de

Communauté Urbaine de Québec  
Saint-Augustin-de-Desmaures  
Neuville  
Donnacona  
Cap-Sante  
Portneuf  
Deschambault  
Saint-Joseph-de-Deschambault  
Saint-Marc-des-Carriers  
Saint-Alban  
Saint-Casimir  
Saint-Ubalde  
Notre-Dame-de-Montauban  
Lac-aux-Sables  
Pointe-aux-Trembles

situés dans la province de Québec à partir de les frontières Ontario/Québec à divers lieux aux Ontario.

**Beck Bus Transportation Corp.** 44453  
R. R. # 1  
Box 768  
Mount Vernon, Illinois  
62864

présente une demande de permis de transport extra-provincial aux fins suivantes:

“Pour le transport nolisé aller-retour de passagers à partir de divers lieux aux l'État de Illinois situé dans les États Unis à les frontière Ontario/É.U. à divers lieux aux Ontario.”

**Brewster Travel Inc.** 44454  
800 N. High St.  
Columbus, Ohio  
43215 U.S.A.

présente une demande de permis de transport extra-provincial aux fins suivantes:

“Pour le transport nolisé aller-retour de passagers à partir de divers lieux aux Les États de Ohio, Kentucky, Indiana et Pennsylvania situés aux les États-Unis à partir de les frontières Ontario/É.U. à divers:

- (a) lieux aux Ontario;
- (b) en passant par les frontières  
Ontario/É.U.  
Ontario/Manitoba  
Ontario/Québec.”

**Ron Brown Buslines Ltd.** 40814-B  
R. R. # 2  
Newington, Ontario  
K0C 1Y0

présente une demande de licence d'exploitation extra-provinciale aux fins suivants:

“Pour le transport nolisé aller-retour d'étudiants, du personnel enseignant et des accompagnateurs relevant de la juridiction de la Commission Scolaire de Stormont, Dundas et Glengarry à partir de divers lieux situés dans le Comté de Stormont, Dundas et Glengarry à les frontières; Ontario/É.U., Ontario/Québec pour l'avancement.

#### SOUS RÉSERVE DES CONDITIONS SUIVANTES:

1. que les voyages nolisés soient limités à des fins scolaires et pour les écoles relevant de la juridiction de la commission scolaire sus-mentionnée;

2. que l'autorisation de nolisement conférée prenne fin le 31 e jour de décembre de l'année, à moins qu'un contrat pour le transport scolaire n'ait été signé avec la commission scolaire sus-mentionnée;
3. que chaque voyage nolisé soit autorisé par écrit par les écoles ou bien la commission scolaire concernées;
4. que le titulaire ne soit autorisé à opérer que des véhicules de transport en commun, de catégorie “D” tels que définis par l'article 9 (1), alinéa (a) (iv) du règlement 888 adopté en vertu de la Loi sur les véhicules de transport en commun L.R.O., c. 425.

**Dworak Motor Company Inc.** 44451  
o/a Dworak Bus Service  
1609 Center St.  
Keweenaw, Wisconsin  
54216 U.S.A.

présente une demande de permis de transport extra-provincial aux fins suivantes:

“Pour le transport nolisé aller-retour de passagers à partir de divers lieux aux État-Unis à partir de les frontières Ontario/É.U à divers lieux aux Ontario.

**Furhman Auto Body Ltd.** 44146-C  
265 Front Street East  
Toronto, Ontario  
M5A 3S3

présente une demande de permis de transport extra-provincial aux fins suivantes:

“Pour le transport nolisé aller-retour de passagers à partir de divers lieux aux Metropolitan Toronto et divers lieux aux le municipalité Régional de Peel à les frontières:

Ontario/Manitoba  
Ontario/Québec  
Ontario/É.U.

Sous Réserve que ci-dessous la loi sur les véhicules de transport en commun et la loi sur les transport routiers le titulaire ne soit autorisé à opérer plus que deux véhicules de transport en commun de catégorie “A” tels que définis par l'article 9 (1), alinéa (a) (i) du règlement 888 adopté en vertu de la loi sur les véhicules de transport en commun, L.R.O., c/ 425 et pouvant transporter au plus 33 passagers assis en plus du conducteur.”

**Kindersley Minor Sports Association Inc.** 44455  
Box 2487  
Kindersley, Saskatchewan  
S0L 1S0

présente une demande de permis de transport extra-provincial aux fins suivantes:

“Pour le transport nolisé aller-retour de passagers à partir de divers lieux aux la Province de Saskatchewan à divers lieux aux Ontario”

## LOI SUR LES VÉHICULE DE TRANSPORT DE COMMUN

### DEMANDES D'EXPLOITATION D'UN AUTOBUS:

Les demandes suivante de permis d'exploitation ont été présentées en vertu de la Loi sur le véhicule de transport en commun, L.R.O. de 1980, chapitre 425 et est publiées en vertu de l'article 8, R.R.O. de 1980, règlement 716 pris en application de la Loi sur la Commission des transports routiers de l'Ontario, L.R.O. de 1980, chapitre 338. L'articulé 8 stipule que la Commission peut traiter ces demandes sans autre forme de procès si aucune objection n'est soulevée et déposée de la manière prescrite dans les vingt-neuf jours suivant la présente publication.

**Corporation of The Town of Dryden****44130-A**

30 Van Horne Avenue  
Dryden, Ontario  
P8N 2A7

présente une demande de permis d'exploitation d'un véhicule de transport en commun aux fins suivantes:

- "1. Pour le transport de passager entre la Ville de Dryden d'une part et l'aéroport municipal de Dryden situé dans le canton géographique de Zealand d'autre part.
2. Pour le transport nolisé de aller-retour de passagers à partir de la Ville de Dryden à:
  - i) Dryden Sanitary Landfill site et Recycling Plant situé dans le Canton Géographique de Vanhorne;
  - ii) Dryden Ski Hill situé dans le Canton Géographique de Zealand.

**NOTE:** Ceci a remplacé les conditions ont publié dans le gazette de l'Ontario du Février 2, 1991."

**TARIF:**

Voir les tarif en Anglais.

**Nora Dillabough****44402**

McArthurs Hills, Ontario  
KOL 2MO

présent une demande de permis d'exploitation d'un véhicule de transport en commun (autobus scolaire) aux fins suivantes:

"Pour le transport d'élèves pour The Hastings County Board of Education entre lieux situés dans le comté de Hastings et pour les écoles relevant de la juridiction sus-mentionnée commission scolaire.

Sous réserve que les privilèges de nolisement se limitent aux fins scolaire et pour les écoles relevant de la juridiction sus-mentionnée commission scolaire.

**Furhman Auto Body Ltd.****44146-B**

265 Front Street East  
Toronto, Ontario  
M5A 3S3

présente une demande de permis de transport d'un véhicule de transport en commun aux fins suivantes:

"Pour le transport nolisé de passagers à partir de divers lieux situés aux Metropolitan Toronto et divers lieux aux le Municipalité Régional de Peel.

Sous Réserve que ci-dessous la loi sur les véhicules de transport en commun et la loi sur les transport routiers le titulaire ne soit autorisé à opérer plus que deux véhicules de transport en commun de catégorie "A" tels que définis par l'article 9 (1), alinéa (a) (i) du règlement 888 adopté en vertu de la loi sur les veinures de transport en commun, L.R.O., c. 425 et pouvant transporter au plus 33 passagers assis en plus du conducteur."

**ERRATUM**

Vide Gazette au date de Janvier 26, 1991.

Avis Re:

**Loyalist Bus Lines Ltd.****44287-A**

25 O'Hara St.  
Belleville, Ontario  
K8P 4R9

**Supprimer:**

"présente une demande de permis de transport d'un véhicule de transport en commun aux fins suivantes."

**La remplacer par:**

"présente une demande de permis de transport scolaire aux fins suivantes."

Felix D'Mello  
Board Secretary

## Government Notices Respecting Corporations Avis du gouvernement relatifs aux compagnies

### Certificates of Incorporation Certificats de constitution

NOTICE IS HEREBY GIVEN that a certificate of incorporation under the *Business Corporation Act, 1982* has been endorsed:

AVIS EST DONNÉ PAR LA PRÉSENTE que, conformément à la *Loi de 1982 sur les compagnies*, un certificat de constitution en personne morale a été inscrit pour les compagnies suivantes :

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°
1990-12-28 Brenjay Garage Door Ltd., Thornhill .....	0925667	1991-01-14 Taylor Homes (Picton) Incorporated, Picton .....	0923247	Anderson Strategic Research Inc., Ottawa .....	0924192
1991-01-08 Jay-Dee Music Inc., Keswick ....	0923217	1991-01-15 923014 Ontario Inc., Cobden ....	0923014	Colour On Wheels Ltd., Cobourg .	0902798
923220 Ontario Inc., Timmins ...	0923220	1991-01-16 Les Entreprises Emile Guy Ltee, Sudbury .....	0920342	Craig & Yocum Computer Systems Ltd., Ottawa .....	0924181
1991-01-10 Nutri-Shield, Canada, Inc., Ottawa	0924137	923130 Ontario Limited, Scarborough .....	0923130	D.J.'s Avionics Inc., Stoney Creek	0919742
1991-01-11 Multi-Trades Construction Ltd., Richmond Hill .....	0923241	1991-01-17 Ag-Tronic Control Systems Inc., Kingsville .....	0916971	Fifth Season Outdoor Products Inc., Kitchener .....	0925256
1991-01-13 Fils Deleon Ltee, Toronto .....	0928209			Fitzroy Estates Ltd., Nepean ....	0924187
				Fund-A-Home Ontario Inc., Barrie	0911282
				Granite Steel Fabrication Limited, London .....	0922020

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°
Infinity Optical America Ltd., London	0922019	Amedeus Fine Cakes Ltd., Thornhill	0928191	Leap Technology Canada Co Ltd., Toronto	0928170
Innovative Management Support Systems, Inc., Ottawa	0924189	Amelco Electric Inc., Oshawa	0917926	MacWare Consulting Inc., Sudbury	0920033
Internal Audit Group Inc., Rockland	0924190	B. Mitchell Contracting Inc., Waterloo	0925262	Magra Computer Products Inc., Markham	0928162
Lesperance Removals And Services Inc., Windsor	0916972	B.A.K. Associates Inc., Willowdale	0928186	Mai Yan Wood Working & Renovation Inc., Scarborough	0928189
M.J. Brodie & Associates Real Estate Inc., Beaverton	0917924	B.F. Mui's Enterprises Inc., Scarborough	0928193	Marsab Contractors & Carpenters Ltd., Woodbridge	0928178
Nellwood Construction Corporation, Woodstock	0922015	Barisco Inc., Barrie	0928144	Michael Canton Inc., Toronto	0928183
Ontario Safety Driving School Inc., Cambridge	0925254	Big Star Studio Inc., Janetville	0928127	Michael Garcia & Company Inc., Ottawa	0924195
R. Stanton Realty Investments Corp., Brampton	0922014	Black Forest Foods (1991) Inc., Brampton	0928166	Milos Euro Invest Inc., Windsor	0916976
RGP Transtech Holdings Inc., Mississauga	0919740	BM Remittances Ltd., Toronto	0928135	Modern Food Development Corporation Inc., Markham	0928196
Sandaj Manufacturing Corporation, Cambridge	0925253	Brisson Farm Services Ltd., Oshawa	0917927	Muroff Impressions Ltd., Toronto	0928146
Sary Inc., Windsor	0916974	C.L.W. Investment Consultants Inc., Willowdale	0928182	Muzatko Inc., Tottenham	0911288
Sum Style Limited, London	0922018	Canada Mortgage Auditors Corporation, Agincourt	0928125	New Tall Masonry & Son Ltd., Toronto	0928214
The Westendorp Group Inc., Kingston	0920610	Centennial Parkway Motors Inc., Toronto	0928167	Northover Communications Inc., Gloucester	0924197
Toadware Technologies Inc., Nepean	0924185	Continental Recyclers Industries Inc., Toronto	0928188	Novo Mundo Construction Ltd., Guelph	0925265
Upper Canada Custom Homes Inc., Morrisburg	0924186	Country Pride Trucking Incorporated, Concord	0928149	Off-Road Tire Specialists Co. Ltd., Mississauga	0928218
Wiltshire Developments Inc., Woodstock	0922017	Country Style Realty Limited, Richmond Hill	0928140	Pete Fryer & Associates Inc., London	0922025
Windsor Eximer Corporation, Windsor	0916973	Creative Ambient Lighting Inc., Scarborough	0928151	Peter M. Schatz Realty Specialists Inc., Mississauga	0928150
Woodstock Pharmacy Ltd., Woodstock	0922013	Dahl's Express Remittances Ltd., Toronto	0928134	Presto Counter Products Inc., Mississauga	0928179
Youngs Life & Financial Services Inc., Welland	0912798	Devinet Consulting Inc., Scarborough	0928153	Radmore Towing Inc, Ottawa	0924193
Zephyr Management Corporation, Windsor	0916975	Dynamic Building Improvements Inc., Gloucester	0924202	Rahtech Security Systems Inc., Toronto	0928169
902799 Ontario Limited, Cobourg	0902799	Ethel Taylor Holdings Inc., Toronto	0928109	RC Synergy Sales Management Inc., Etobicoke	0928132
911283 Ontario Inc., Barrie	0911283	European Custom Homes Limited, Thornton	0911287	Ron Peters Auto Centre Inc., Lucan	0922024
911284 Ontario Inc., Barrie	0911284	Excel Training Systems Inc., Burlington	0919744	Rose Taylor Holdings Inc., Toronto	0928108
911285 Ontario Limited, Aurora	0911285	Extendo Cable Company Ltd., Toronto	0928180	S-Ong Inc, Nepean	0924194
911841 Ontario Inc., Sombra	0911841	Faversham Capital Corporation, St Catharines	0928192	Schlagintweit Films Inc., Toronto	0928212
917922 Ontario Inc., Toronto	0917922	Frimo Precision Ltd., Weston	0928216	Sherwood Quebec Inc., Cambridge	0925263
917923 Ontario Limited, Ajax	0917923	General Hydraulic (1990) Inc., Windsor	0916977	Stephan Lim & Associates Inc., Markham	0928147
919738 Ontario Limited, Burlington	0919738	Greenwood Laboratories Ltd., Niagara Falls	0912800	Sundridge Gp Inc., Toronto	0928201
919739 Ontario Inc., Hamilton	0919739	Halexan Ltd., Willowdale	0928165	Tamarind Services Inc., Richmond Hill	0928190
919741 Ontario Inc., Hamilton	0919741	Harlas Inc., Kanata	0924198	The Fowler Family Trust Number 3 Corporation, St Catharines	0928221
919743 Ontario Inc., Burlington	0919743	Hatts Off Specialized Services Inc., Dundas	0919746	The R.W.L. Group Inc., London	0922023
920609 Ontario Inc., Kingston	0920609	Highland Down Products Manufacturing Inc., Scarborough	0928155	Tread-Packer Inc., London	0922022
922016 Ontario Limited, London	0922016	Hunt Club Flooring And Interiors Inc., Gloucester	0924196	Tyson Custom Homes Inc., North York	0928154
924180 Ontario Ltd, Ottawa	0924180	I & C Fibreglass Inc., Toronto	0928210	U S Vacuum Systems Inc., Guelph	0925264
924182 Ontario Inc., Kemptville	0924182	I & I International Company Limited, Mississauga	0928202	Victor Volkmer Carpentry Inc., Stittsville	0924199
924183 Ontario Inc., Carleton Place	0924183	Impact Graffiti Ltd., Toronto	0928133	VSI-Video Systems Inc., Brampton	0928168
924184 Ontario Ltd., Orleans	0924184	International Gallery Of Masters Limited, Oakville	0928156	Weston Medical Centre Pharmacy Limited, Downsview	0928208
924188 Ontario Inc., Toronto	0924188	J & H MacHollow Ltd., Weston	0928211	WKB Air Balancing Inc., Toronto	0928145
924191 Ontario Inc., Nepean	0924191	Jopal Group Inc., Brampton	0928177	539 Crescent Realty Inc., Toronto	0928136
925252 Ontario Limited, Kitchener	0925252	Kachina Incorporated, Willowdale	0928138	911286 Ontario Inc., Warton	0911286
925255 Ontario Inc., Cambridge	0925255	Kolstar Services Inc., Woodbridge	0928175	912799 Ontario Ltd, Brampton	0912799
925257 Ontario Inc., Cambridge	0925257	Kopyworld Printing Inc., Scarborough	0917928	916978 Ontario Limited, Kingsville	0916978
925258 Ontario Limited, Kitchener	0925258			916979 Ontario Limited, Kingsville	0916979
925259 Ontario Inc., Waterloo	0925259			916980 Ontario Limited, Windsor	0916980
1991-01-18					
Admincan Inc., Rexdale	0928128				
Aeroland Sufferance Warehouse Inc., Mississauga	0928157				
Al & Sons Family Restaurant Inc., Scarborough	0928171				

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°
917925 Ontario Limited, Oshawa .	0917925	Covered Bridge Estates Inc., West Montrose . . . . .	0925269	Self-Load Moving & Storage Systems Inc., Weston . . . . .	0928287
918801 Ontario Limited, Thorold .	0918801	Debec (Flamborough) Ltd., Troy .	0919752	Silc Data Systems Inc., Toronto .	0928229
919745 Ontario Inc., Delhi . . . . .	0919745	Delhi Aircraft Storage Inc., Simcoe . . . . .	0928263	Smiling Sam's Bar-B-Q Inc., St Catharines . . . . .	0918802
919747 Ontario Ltd., Carlisle . . . .	0919747	Desert Storm Trucking Inc., Scarborough . . . . .	0928222	Stejmar Investments Inc., Embrun	0924205
922026 Ontario Limited, London .	0922026	DGM Bookkeeping Inc., Aurora . .	0928233	Stratford Shopping News Ltd., Woodstock . . . . .	0922027
924200 Ontario Ltd., Ottawa . . . . .	0924200	DHL Services Inc., Brampton . . . .	0928264	Stuntline Entertainment Corporation, Toronto . . . . .	0928238
924201 Ontario Inc., Morewood . .	0924201	Duffus Motors (1990) Inc., Toronto . . . . .	0928252	Sumley Enterprises Inc., Bowmanville . . . . .	0928223
925260 Ontario Inc., Waterloo . . .	0925260	E.M. Metal Ltd., Woodbridge . . . .	0928244	Tanis Productions Limited, Islington . . . . .	0928255
925261 Ontario Limited, Kitchener . . . . .	0925261	Enertech Building Products Ltd., Mississauga . . . . .	0928281	The Erinmaxx Corporation, Toronto . . . . .	0928251
925266 Ontario Limited, Cambridge . . . . .	0925266	Fastrak Cellular Limited, Richmond Hill . . . . .	0928254	The Small Box Company Ltd., Toronto . . . . .	0928256
925267 Ontario Inc., Petersburg . .	0925267	Flex-All Health Care Inc., Bolton .	0928236	Timbergate Engineering Inc., Cambridge . . . . .	0928225
928126 Ontario Inc., Markham . . .	0928126	Fred Kreager Trucking Inc., Waterloo . . . . .	0925272	Transat Marine Ltd., Barrie . . . . .	0928269
928129 Ontario Limited, Scarborough . . . . .	0928129	Geneva Szegged International Consulting Ltd., Toronto . . . . .	0928280	Tunstall (Canada) Inc., Toronto . .	0928291
928130 Ontario Limited, Scarborough . . . . .	0928130	Geometric Tile Ltd., Brampton . . .	0928271	Verkindt Farms Inc., Lasalle	0928231
928131 Ontario Limited, Oakville .	0928131	GFP Newco Corp., Englehart . . . .	0928268	William Chow Computer Consulting Inc., Scarborough . .	0928230
928137 Ontario Ltd., Toronto . . . .	0928137	Hands-Free Inc., Mississauga . . . .	0928226	Wm. Saunders Const. Ltd., Guelph	0925271
928139 Ontario Limited, Newmarket . . . . .	0928139	Herbaro Properties Inc., Mississauga . . . . .	0928266	XXY Investments Inc., Kitchener .	0925273
928142 Ontario Limited, Mississauga . . . . .	0928142	Hoas Celebrity Car Care Inc., Mississauga . . . . .	0928224	911289 Ontario Inc., Midland . . . .	0911289
928143 Ontario Limited, Woodbridge . . . . .	0928143	Homelife Bayview 2001 Ltd. Realtor, Markham . . . . .	0928258	911290 Ontario Limited, Barrie . . .	0911290
928148 Ontario Limited, Concord .	0928148	Integrated Systems Incorporated, Mississauga . . . . .	0928265	917930 Ontario Ltd., Oshawa . . . .	0917930
928152 Ontario Inc., Toronto . . . . .	0928152	James & Annette Clark Marketing Inc., Richmond Hill . . . . .	0928282	918803 Ontario Inc., Welland . . . .	0918803
928158 Ontario Inc., Chatham . . . .	0928158	Juan Esteban Development Corp., Toronto . . . . .	0928247	918804 Ontario Inc., Welland . . . .	0918804
928159 Ontario Limited, North York . . . . .	0928159	Kape Productions Inc., Toronto . . .	0928270	919748 Ontario Inc., Dundas . . . .	0919748
928160 Ontario Limited, North York . . . . .	0928160	Kin Garden Chinese Restaurant Inc., North York . . . . .	0928286	919750 Ontario Inc., Hamilton . . .	0919750
928161 Ontario Limited, Markham .	0928161	Kingsbury Medical Centres Developers Inc., Brampton . . . .	0928283	919751 Ontario Inc., St Catharines	0919751
928163 Ontario Inc., Toronto . . . .	0928163	La Pisina Marketing Inc., Toronto .	0928248	919753 Ontario Limited, Hamilton .	0919753
928164 Ontario Ltd., Scarborough .	0928164	Leeward Environmental Systems Inc., Halton Hills . . . . .	0928262	919755 Ontario Inc., Hamilton . . .	0919755
928172 Ontario Limited, Thornhill . .	0928172	Light Financial Corporation, Mississauga . . . . .	0919754	920611 Ontario Inc., Belleville . . .	0920611
928173 Ontario Limited, Toronto . .	0928173	M.L. Nugent & Co. Design Inc., Oakville . . . . .	0928249	920612 Ontario Inc., Belleville . . .	0920612
928176 Ontario Inc., Caledon East .	0928176	Marr Corporation, Oakville . . . . .	0928242	924207 Ontario Inc., Ottawa . . . . .	0924207
928181 Ontario Ltd., Brockville . .	0928181	Meadow Heights Properties Inc., West Montrose . . . . .	0925268	925270 Ontario Inc., Waterloo . . .	0925270
928185 Ontario Inc., Willowdale . .	0928185	Motronix Inc., Mississauga . . . . .	0928250	928203 Ontario Inc., Mississauga . .	0928203
928187 Ontario Inc., Toronto . . . .	0928187	Neuvien Corporation, Agincourt . .	0928234	928228 Ontario Inc., Richmond Hill . . . . .	0928228
928194 Ontario Inc., Scarborough .	0928194	Outbacks International Inc., Richmond Hill . . . . .	0928246	928235 Ontario Inc., Toronto . . . .	0928235
928195 Ontario Limited, Markham .	0928195	P & S Print Canada Ltd., Toronto .	0928272	928240 Ontario Inc., Toronto . . . .	0928240
928197 Ontario Inc., Toronto . . . .	0928197	Personelle Limousine Ltd., Willowdale . . . . .	0928245	928241 Ontario Inc., Thornhill . . . .	0928241
928198 Ontario Limited, Mississauga . . . . .	0928198	Randy Pickles Electric Ltd., Brampton . . . . .	0928278	928253 Ontario Limited, Burlington . . . . .	0928253
928199 Ontario Limited, Woodbridge . . . . .	0928199	Retail Portfolio Group Canada Ltd., Toronto . . . . .	0928259	928261 Ontario Inc., North Bay . . .	0928261
928204 Ontario Limited, Toronto . .	0928204	Rizcon Construction Limited, Toronto . . . . .	0928237	928267 Ontario Limited, Toronto . .	0928267
928205 Ontario Limited, Toronto . .	0928205	Saila Millwork Inc., Stoney Creek	0919749	928273 Ontario Inc., North Bay . . .	0928273
928206 Ontario Inc., Richmond Hill . . . . .	0928206	Schat Import Agencies Inc., Toronto . . . . .	0928227	928274 Ontario Inc., Dundas . . . .	0928274
928207 Ontario Limited, Toronto . .	0928207	Sculpture Foundry Inc., Mississauga . . . . .	0928260	928275 Ontario Limited, Concord .	0928275
928213 Ontario Inc., Toronto . . . .	0928213			928276 Ontario Limited, Burlington . . . . .	0928276
928215 Ontario Inc., Toronto . . . .	0928215			928277 Ontario Limited, Priceville	0928277
928217 Ontario Inc., Richmond Hill . . . . .	0928217			928284 Ontario Inc., Toronto . . . .	0928284
928219 Ontario Limited, Nobleton .	0928219			928285 Ontario Inc., North York . .	0928285
928220 Ontario Ltd., Willowdale . .	0928220			928288 Ontario Inc., Willowdale . .	0928288
1991-01-21				928289 Ontario Inc., Willowdale . .	0928289
Adventure Boats Limited, Oshawa .	0917931			1991-01-22	
Alexander Brown Inc., Willowdale	0928232			Active Desktop Inc., Mississauga . .	0928344
AP Construction Inc., Toronto . . .	0928290			Al-Anwar Enterprises Inc., Brampton . . . . .	0928305
Central City Sheet Metal Ltd., Scarborough . . . . .	0928243			Arts Express Courier Inc., Bramalea . . . . .	0928370
Chocolate Signatures Inc., Toronto	0928257			Audiopath Inc., Mississauga . . . . .	0928328
Cloud 9 Maternity Inc., Toronto . .	0928239			Barker, Dixie Inc., Barrie . . . . .	0928365
Copper And Brass Sales Inc., Toronto . . . . .	0928279				

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°
Baw & Associates Inc., Scarborough	0928313	New Beginnings Weight Loss Centre Of Chatham Ltd., Chatham	0928335	922029 Ontario Ltd., Tillsonburg	0922029
Beamor Holdings Inc., Scarborough	0902800	New England Medical Ltd., Toronto	0928364	922031 Ontario Inc., Thamesville	0922031
Berkut Technologies Corp., Mississauga	0928333	North Hastings Realty Inc., Bancroft	0928315	922032 Ontario Limited, London	0922032
Blue Eyes Escort Service Inc., Thunder Bay	0917222	North Westney Mini-Mart Ltd., Scarborough	0928321	924211 Ontario Inc., Ottawa	0924211
C & G Glass & Mirror Ltd., Palgrave	0928184	OMG Associates Inc., Rexdale	0928297	925276 Ontario Inc., Scarborough	0925276
Canada Hearing Centre Ltd., Willowdale	0928372	Ontech International, Inc., Markham	0928353	925277 Ontario Limited, Kitchener	0925277
Central Digital Communications Ltd., Mississauga	0928319	Ontech Marketing, Inc., Markham	0928352	925278 Ontario Inc., Waterloo	0925278
Cicen Servicing Inc., Grimsby	0919763	Packaging Products Inc., Burlington	0919758	925279 Ontario Inc., Kitchener	0925279
Commercial Novelty Limited, Downsview	0928363	Pastavino Restaurants Inc., Mississauga	0928358	928293 Ontario Ltd., Thornhill	0928293
Cowan Financial Services Inc., Kitchener	0925275	Polycon Trading Ltd., Toronto	0928301	928294 Ontario Limited, Toronto	0928294
Damocles Lumber Inc., North York	0928292	Quality Coating & Chemicals Inc., Mississauga	0928332	928298 Ontario Limited, Concord	0928298
Darke Heating Limited, Colborne	0917935	Ram Pictures Inc., Toronto	0928311	928300 Ontario Limited, Toronto	0928300
David F. Bolivar Consulting Inc., Downsview	0928331	Rampart Enterprises Canada Inc., Scarborough	0928367	928302 Ontario Inc., Toronto	0928302
Doug Workman & Associates Ltd., Downsview	0928366	Rodeo Car Rentals Inc., Toronto	0928354	928304 Ontario Inc., Toronto	0928304
DRJ Computer Systems Inc., Stoney Creek	0928314	Roger Edwards Ltd., Toronto	0928303	928310 Ontario Limited, Markham	0928310
Dungiven Holdings Inc., Mississauga	0928306	Roma Windows Inc., Mississauga	0928322	928316 Ontario Inc., Markham	0928316
Eagle Heights Holdings Limited, Oshawa	0917932	Ron O'Brien Farms Ltd., Crediton	0922028	928320 Ontario Limited, Etobicoke	0928320
Enoch Travel (Scarborough) Agency Limited, Scarborough	0928373	Sacoar & Sacoar Co. Inc., Toronto	0928299	928325 Ontario Limited, Weston	0928325
Ernie's Auto Service (Niagara) Limited, Niagara Falls	0918805	Senator's Pub Inc., Nepean	0924208	928327 Ontario Ltd., North York	0928327
Fast Plumbing Inc., Toronto	0928371	Simcoe Newspapers Limited, Creemore	0911295	928330 Ontario Inc., North Bay	0928330
Guru Investment Consultants Limited, Toronto	0928326	Specialist Over Sees Inc, Whitby	0917937	928334 Ontario Limited, Cochrane	0928334
H C H Enterprises Inc., Mississauga	0928348	Star Group Community Newspapers Inc., Creemore	0911296	928337 Ontario Limited, Simcoe	0928337
Heartland Engineering Consultants Inc., Orangeville	0928347	Strategic/Ampersand Inc., Toronto	0928323	928338 Ontario Inc., Scarborough	0928338
High-Point Engineering Ltd., Midland	0928346	Sudbury Success Centre Corp., Sudbury	0928360	928339 Ontario Inc., Markham	0928339
Hilltop Thoroughbred Layup Center Ltd., Creemore	0928345	Tand/Pam Homes Ltd., Lindsay	0928296	928340 Ontario Inc., Mississauga	0928340
Homestyle Fish & Chips Inc., Brampton	0928308	The Islington Group Corporation, Weston	0928361	928349 Ontario Inc., Milton	0928349
Industair Environmental Systems Incorporated, Mississauga	0928356	The Richgate Corporation, Brampton	0928336	928350 Ontario Ltd., North York	0928350
Injury Care Enterprises Inc., Guelph	0925274	Thomas & Young Importers Inc., Woodbridge	0928312	928351 Ontario Inc., Toronto	0928351
IVI Travel Of Canada, Ltd., Toronto	0928295	Tigermoth Limited, Barrie	0911293	928355 Ontario Inc., Toronto	0928355
J & P Honey Products Inc., Ottawa	0924210	Vision Printing Inc., Mississauga	0928374	928357 Ontario Ltd., Caledon	0928357
J.P. Hellewell & Associates Inc., Toronto	0928317	W. H. Lumley Insurance Agency Inc., Woodbridge	0928341	928368 Ontario Ltd., Toronto	0928368
Jesco Imaging Inc., Toronto	0928343	Woodroffe Park Development Corporation, Ottawa	0924209	928369 Ontario Ltd., Toronto	0928369
Karigan & Associates Ltd., London	0922030	Yang's Fine Arts & Gifts Ltd., Scarborough	0928309	1991-01-23	
Knack Realty (Kit.) Inc., Cambridge	0925280	911291 Ontario Inc., Collingwood	0911291	A To Z Bakery Equipment Service Limited, Scarborough	0928634
Lewis Holdings Inc., Etobicoke	0928307	911292 Ontario Inc., Collingwood	0911292	AB-Flex Canada Inc., Toronto	0928664
Magic Video Inc., Willowdale	0928359	911294 Ontario Inc., Midland	0911294	Ardel Drywall Ltd., Woodbridge	0928377
Meagapin Ltd., Markham	0928318	916983 Ontario Limited, Windsor	0916983	Arnold's Billiards Ltd., North York	0928641
Morka Management (1991) Inc., North York	0928342	916984 Ontario Inc., Windsor	0916984	Asian Resources Imports Inc., Toronto	0928393
Mvkay Inc., Mississauga	0928362	917221 Ontario Ltd.; Thunder Bay	0917221	Big Star Lighting Ltd., Mississauga	0928624
		917933 Ontario Inc., Oshawa	0917933	BPI General Partner II Inc., Toronto	0928632
		917934 Ontario Limited, Colborne	0917934	Bramalea Oral Surgery Inc., Bramalea	0928622
		917936 Ontario Inc., Cobourg	0917936	Brencor Inc., Burlington	0928603
		919756 Ontario Limited, Hamilton	0919756	Caltran Investments Inc., North York	0928620
		919757 Ontario Limited, Hamilton	0919757	Canadian Security And Investigation Systems Limited, Toronto	0928398
		919759 Ontario Inc., Burlington	0919759	Carleton Express Lines Inc., Englehart	0928668
		919760 Ontario Inc., Burlington	0919760	Cinema Inc., Toronto	0928605
		919761 Ontario Inc., Hamilton	0919761	Cottage Patrol Ltd., Haliburton	0928642
		919762 Ontario Inc., Hamilton	0919762	Cue Real Property (1) Ltd., Toronto	0928631
		920613 Ontario Ltd., Kingston	0920613	E & L Davis Sales Limited, Toronto	0928662
		920614 Ontario Inc., Kingston	0920614	Ernrob Investments Inc., Toronto	0928379
				F&O Developments Inc, Thornhill	0928609
				Footliners Products Inc., Toronto	0928661
				Germar Graphic Services Limited, Brampton	0928382
				Granway Estates Inc., North York	0928619

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°
Granymede Investments Limited, Mississauga .....	0928643	Office Installation Solutions Inc., Scarborough .....	0928612	928380 Ontario Limited, Richmond Hill .....	0928380
H.J. Moffatt Insurance Brokers Inc., Willowdale .....	0928660	Outsourcing Sales Inc., Toronto ..	0928656	928384 Ontario Inc., Scarborough	0928384
Harcourt Industries Inc., Don Mills .....	0928610	P.C. Advance Inc., Toronto .....	0928630	928385 Ontario Ltd., Mississauga ..	0928385
Harry Wolle And Associates Insurance Agencies Limited, Richmond Hill .....	0928392	Parkway Jewellers Ltd., Richmond Hill .....	0928607	928386 Ontario Limited, Toronto ..	0928386
JMS Furniture Ltd., Mississauga ..	0928636	Pebblecreek Holdings Inc., North York .....	0928617	928387 Ontario Limited, Toronto ..	0928387
Jonn Cunnison Investments Inc., Toronto .....	0928654	Porbar Holdings Inc., Brampton ..	0928649	928388 Ontario Limited, Toronto ..	0928388
L.A. - Plus Investments Ltd., Scarborough .....	0928623	Queensdale Construction Limited, Toronto .....	0928397	928389 Ontario Limited, Toronto ..	0928389
L.H.C. Ltd., Lindsay .....	0928646	R&J Appraisal/Management Inc., Weston .....	0928663	928395 Ontario Inc., North York ..	0928395
Lyndvar Corporation, Toronto ..	0928640	Raul Mercier Fine Arts Inc., Mississauga .....	0928625	928399 Ontario Inc., Downsview ..	0928399
McGuire Environmental Contracting Inc., Merlin .....	0928626	Renaissance Plastics Inc., Hamilton .....	0928390	928601 Ontario Limited, Toronto ..	0928601
Millergrove Developments Inc., North York .....	0928618	Sanefe Steel Fabrication Ltd., Ajax .....	0928659	928602 Ontario Limited, Toronto ..	0928602
Mississauga Bakery Supplies Ltd., Mississauga .....	0928658	Shu Investments Ltd., Downsview	0928639	928604 Ontario Inc., Thornhill ...	0928604
Monardo Construction Ltd., Woodbridge .....	0928378	Signex Wholesale Graphics Inc., Mississauga .....	0928383	928606 Ontario Inc., Oakville ...	0928606
Mountainwatch Estates Inc., Toronto .....	0928666	Tecota Inc., Mississauga .....	0928376	928608 Ontario Limited, Toronto ..	0928608
N B S Dundas Ltd., St Catharines .	0928644	The Free Trade Institute Inc., Toronto .....	0928647	928611 Ontario Inc., Bramalea ...	0928611
New Azores Aluminum Ltd., North York .....	0928616	The J & H Building Company Inc., Schomberg .....	0928645	928613 Ontario Inc., Toronto ....	0928613
Ninjo Corp., Bolton .....	0928648	The Metal Mall Ltd., Mississauga .	0928381	928614 Ontario Inc., Toronto ....	0928614
North Bay Mat Rental Ltd., North Bay .....	0928637	The Original Black Magic Window Tinting & Auto Accessories Ltd., Hamilton ....	0928394	928615 Ontario Inc., Toronto ....	0928615
Northlight Studios Inc., Toronto ..	0928400	Tiffin Productions Inc., Toronto ..	0928396	928621 Ontario Limited, Weston ..	0928621
Nova Dry Cleaners Corporation, Oakville .....	0928629	York Valley Service Centre Ltd., Toronto .....	0928633	928627 Ontario Limited, Woodbridge .....	0928627
		928375 Ontario Inc., Toronto ....	0928375	928628 Ontario Limited, Woodbridge .....	0928628
				928635 Ontario Limited, Hamilton	0928635
				928650 Ontario Inc., Toronto ....	0928650
				928651 Ontario Limited, Scarborough .....	0928651
				928652 Ontario Inc., Toronto ....	0928652
				928653 Ontario Ltd., Toronto ....	0928653
				928655 Ontario Limited, Toronto ..	0928655
				928665 Ontario Limited, Markham .....	0928665
				928667 Ontario Limited, Toronto ..	0928667

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## Letters Patent of Incorporation Issued Émission de lettres constitutives

NOTICE IS HEREBY GIVEN that, under the *Corporations Act*, Letters Patent have been issued to: The date of incorporation precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'émission de lettres patentes en vertu de la *Loi sur les compagnies et associations* : la date de la constitution en personne morale précède la liste des compagnies visées.

Name of Corporation and Head Office Dénomination et siège social	Ontario Corp. No. Numéro matricule de l'Ontario
1990-10-18 Christian Rainbows Fellowship of South-Western Ontario, Burlington .....	913439
1990-11-15 Kids Company Day Care Centre, North York .....	916319
1990-12-5 The Neighbourhood Supervised Access Centre of Toronto, Toronto .....	913423
1990-12-7 Centro Sociologico Italiano of Toronto, North York .....	909055
1990-12-10 North Shore Crisis Pregnancy Centre, Blind River .....	916329

Name of Corporation and Head Office Dénomination et siège social	Ontario Corp. No. Numéro matricule de l'Ontario
1990-12-12 Chambre Economique de l'Ontario, Ottawa .....	913592
1990-12-18 Latvia Relief and Development Fund (Ontario) Toronto .....	916389
1990-12-20 Northern Ontario Snowmobile Association, Foley .....	913575
1990-12-20 Mount Hamilton Minor Hockey Association, Hamilton .....	923103
1990-12-21 Robertson Lake Snowmobile Club, Ottawa .....	923068
1990-12-21 North-Hamilton Christian Connections for Crafts and Thrift, Hamilton .....	923109
1990-12-27 The Vital Spark Folk Society, Whitby .....	923104
1991-1-2 Club Motoneige Fauquier Snowmobile Club, Fauquier .....	923129
1991-1-3 Osprey Figure Skating Club, Osprey .....	920260
1991-1-2 Patricia Community Futures Organization Inc., Ignace .....	824746
1991-1-3 Russell Meadows Non-Profit Accommodations Inc., Kincardine .....	920312
1991-1-3 The Isaac Family Foundation, St. Catharines .....	920358
1991-1-3 The Nickel District Skeet and Trap Club Inc., Rayside-Balfour .....	907942

Name of Corporation and Head Office Dénomination et siège social	Ontario Corp. No. Numéro matricule de l'Ontario
1991-1-4	
Verulam Masonic Temple Corporation No. 268, Bobcaygeon .....	920341
The Workman Theatre Project of Ontario, Toronto .....	920259
1991-1-7	
City of York Bingo Corporation, York .....	923213
Kakabeka Legion Seniors Development Corporation Kakabeka Falls .....	913483
Second St. John Spiritual Baptist Church of Canada (Toronto) Ontario, Toronto .....	913517
Simcoe Women's Wellness Centre Corporation, Barrie .....	907987
Tillsonburg Aquatic Torpedoes Inc., Tillsonburg .....	920272
William – Howard Charities For Central Ontario, Barrie .....	916297
1991-1-8	
Robins Point Ratepayers Association, Victoria Harbour ....	906077
South Hastings Non-Profit Housing Corporation, Belleville .....	920261
Upper Canada Collision Association, Uxbridge .....	916233
World Christian Revival Ministries of Scarborough, Scarborough .....	909010
1991-1-9	
Magyarok Emlekkonyvtara Niagara Inc., Niagara Falls .....	920215
Mudpuppies Underwater Club Incorporated, Scarborough ...	920398
Richmond Hill Minor Ball Association, Richmond Hill .....	923222
Tiny's Inland Residents Working Together, Tiny .....	920375
We Four Homes For The Developmentally Handicapped Metropolitan Toronto, Markham .....	916348
1991-1-10	
Filipinesca-Canadiana Social Club Inc. (Durham), Ajax ....	916202
Millwright Provincial Local Apprenticeship Committee Corporation, Toronto .....	920359
Mississauga Italian Canadian Business and Professional Association, Mississauga .....	916320
Ontario Rubber Recyclers' Association, North York .....	907850
Sault Youth Sports Association, Sault Ste. Marie .....	923236
1991-1-11	
Ecological Farmers Organization of Ontario, Kincardine ....	920376
Eramosa Community Play Theatre Group, Rockwood .....	920395
1991-1-14	
The Graduate Student Society of Queen's University Kingston .....	913450
The Nazarine Spiritual Baptist Tabernacle of Toronto, Toronto .....	920299
The Ontario Produce Marketing Association, Toronto .....	920248
Pathway Childcare Centre Inc., Brampton .....	916343
1991-1-16	
Ontario Workers Arts and Heritage Centre Inc., Hamilton ...	916236
The Organization for Child and Family Assistance (Hamilton), Hamilton .....	916335
Society of St. Pius X (Ontario), East York .....	906127
The Teresa Group – Child and Family Aid, Toronto .....	916332
The Vespra-Gryphon Non-Profit Home Corporation, Barrie .	899345
Village Estates Waterfront Group, Ivy Lea 1990, Lansdowne .....	916334

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Certificates of Amalgamation Certificats de fusion

NOTICE IS HEREBY GIVEN that, a certificate of amalgamation under the *Business Corporations Act, 1982* has been endorsed: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription du certificat de fusion faite en vertu de la *Loi de 1982 sur les compagnies*. La date d'entrée en vigueur précède la liste des compagnies visées.

Name of Amalgamated Corporation: Amalgamating Corporations Dénomination sociale de la compagnie issue de la fusion :	Ontario Corp. No. Numéro de matricule de l'Ontario
Compagnies qui fusionnent	

1990-12-31	
R.W. Evans Research Corporation: .....	923096
R. W. Evans Research Corporation, Miller, Toller & Evans Inc.	
1991-1-1	
Ages Holdings Limited: .....	914191
Ages Holdings Limited, S.M.S. Holdings Limited, Sanco Limited	
1991-1-17	
Wm. E. Westlake Foods Incorporated: .....	928064
M. Billingham Enterprises Limited, Wm. E. Westlake Foods (1983) Incorporated, Wm. E. Westlake Foods Incorporated	
928090 Ontario Limited: .....	928090
439501 Ontario Limited, Adrian Van Haaster Limited	
1991-1-18	
Russell A. Farrow Limited: .....	916981
Russell A. Farrow Limited, Trans-Canada Customs Inc.	
917929 Ontario Limited: .....	917929
773748 Ontario Limited, 490343 Ontario Limited	

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Corrected Certificates of Amalgamation Certificats de fusion corrigé

NOTICE IS HEREBY GIVEN that, a certificate of amalgamation under the *Business Corporations Act, 1982* has been endorsed: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription, en vertu de la *Loi de 1982 sur les compagnies*, d'un certificat de fusion délivré aux compagnies intéressées dont la liste est précédée de la date d'entrée en vigueur.

Name of Amalgamated Corporation: Amalgamating Corporations Dénomination sociale de la compagnie issue de la fusion :	Ontario Corp. No. Numéro matricule de la compagnie en Ontario
Compagnies qui fusionnent	

1990-3-31	
Zierick Canada Corporation: .....	889990
747305 Ontario Limited, Zierick Canada Corporation	
1990-12-31	
Trenline-Laramée Glass Products Incorporated: .....	926261
Trenline-Laramée Glass Products Incorporated, Falconer Canada Inc.	

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Certificates of Continuance Certificats de continuation

NOTICE IS HEREBY GIVEN that, a certificate of continuance under the *Business Corporations Act, 1982* has been endorsed: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription de certificats de continuation délivrés en vertu de la *Loi de 1982 sur les compagnies*. La date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation and Registered Office	Ontario Corp. No.
Dénomination et siège social :	Numéro de matricule de l'Ontario

1990-12-31	
R.W. Evans Research Corporation, Etobicoke	254317
1991-1-15	
H.J. Hutchinson Enterprises Ltd., Markdale	727316
Kenada Commercial Services Ltd., Toronto	923242
1991-1-16	
Vermont American Canada, Inc., Toronto	613507

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Transfer of Ontario Corporations Transfert de compagnies constituées en Ontario

NOTICE IS HEREBY GIVEN that, under the *Business Corporations Act, 1982* an authorization to make an application for an instrument of continuance outside Ontario, has been given to: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES qu'en vertu de la *Loi de 1982 sur les compagnies*, l'autorisation de présenter la demande en vue de l'inscription d'un acte de transfert hors du territoire de l'Ontario a été donnée : la date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation and	Ontario Corp. No.
Jurisdiction where applying:	Numéro de
Dénomination sociale et nom de	matricule de l'Ontario
l'autorité compétente, s'il y a lieu	

1990-12-13	
Dimac Medical Inc., British Columbia	843539
1990-12-14	
Allan Sheftel Limited, Alberta	364249
1990-12-17	
Interep Corporation, Canada	319421
1990-12-19	
Harold Kalman & Associates Ltd., British Columbia	644114
1991-1-10	
Towers Department Stores Inc.	
Grands Magasins Towers Inc., Canada	609446
1991-1-14	
627283 Ontario Inc., Canada	627283
1991-1-15	
Interprovincial Paving (Ontario) Ltd., Canada	561782
Prosperine Equipment Co. Limited, Canada	091766
587956 Ontario Inc., Canada	587956
1991-1-17	
Betchar Holdings Ltd., Canada	319418
Canaan Quarry Inc., Canada	806871
1991-1-18	
Curbanectics Limited, Canada	289702

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Restated Certificates of Incorporation Mise à jour de certificats de constitution

NOTICE IS HEREBY GIVEN that, a restated certificate of incorporation under the *Business Corporations Act, 1982* has been endorsed. The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription d'un certificat de constitution en personne morale mis à jour en vertu de la *Loi de 1982 sur les compagnies*. La date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation	Ontario Corp. No.
Dénomination sociale	Numéro matricule de l'Ontario

1990-12-17	
Ellcliff Dairy Farms Limited	208954

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Amendments to Articles Modification de statuts

NOTICE IS HEREBY GIVEN that, under the *Business Corporations Act, 1982* amendments to articles have been effected as follows: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES que les statuts des compagnies énumérées ci-dessous ont été modifiés en vertu de la *Loi de 1982 sur les compagnies*, comme suit. La date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation	Ontario Corporation Number
Dénomination sociale	Numéro matricule de l'Ontario

1990-12-3	
Blackship Enterprise Inc. (formerly Lord Randall Inc.)	840944
1990-12-12	
253097 Ontario Inc. (formerly Hendrick Funeral	
Home Limited)	253097
1990-12-14	
Rutherford Group Canada Inc. (formerly Rutherford	
Group International Inc.)	851259
1990-12-17	
Ellcliff Dairy Farms Limited	208954
1990-12-18	
Bramtronics T.V. Ltd. (formerly Ron Dyck T.V.	
Limited)	577382
Bruce Freeman Real Estate Services Inc.	560651
902475 Ontario Inc.	902475
1990-12-19	
Kinematics Energy Systems Inc.	428868
Sandbar Tavern Inc.	538202
207314 Ontario Inc. (formerly Nipissing Manor	
Limited)	207314
1990-12-27	
V & A Fashions Inc.	393886
1990-12-28	
917050 Ontario Inc.	917050
1990-12-31	
Kindelane Enterprises Ltd.	453403
Sefton Nursing Associates Inc. (formerly Sefton	
Obstetrical Nursing Inservice Inc.)	726108
1991-1-2	
St. Lawrence Group Limited	615326
St. Lawrence Starch Company Limited	921440
1991-1-3	
Century 21 Scott Real Estate Ltd.	218066

Name of Corporation Dénomination sociale	Ontario Corporation Number Numéro matricule de l'Ontario	Name of Corporation Dénomination sociale	Ontario Corporation Number Numéro matricule de l'Ontario
Gecia Management Ltd. ....	347295	Modern Engineering and Trading Inc. (formerly 911692 Ontario Limited) ....	911692
Hospital & Kitchen Equipment Limited ....	250773	Ottawa Commercial Tire and Battery (1991) Limited (formerly 914095 Ontario Inc.) ....	914095
Modular Fresh Air Control Technology Inc. (formerly Freightex Transport Inc.) ....	686010	River Oaks Realty Inc. (formerly K. R. Brown Realty Inc.) ....	650756
572546 Ontario Inc. ....	572546	Tar Trading Ltd. (formerly Hoener Real Estate Co. Ltd.) ...	442438
1991-1-7		Trans-Canada Customs Inc. ....	502594
ICG Utilities (Ontario) Ltd. ....	649507	T.S.E. Management Services Inc. (formerly T.S.E. Realty Inc.) ....	530380
1991-1-8		U-Turn Productions Inc. (formerly That Other Bookstore Inc.) ....	902291
Murray Woolner Homes Ltd. ....	577790	470 Dundas Inc. (formerly 911647 Ontario Limited) ....	911647
348816 Ontario Ltd. (formerly A. Gorgi Masonry (1976) Ltd.) ....	348816	552710 Ontario Inc. (formerly Woodstock Industrial Sewing Equipment Inc.) ....	552710
1991-1-9		851302 Ontario Limited ....	851302
Jaftco Transportation Services Inc. ....	871076	912610 Ontario Limited ....	912610
810344 Ontario Limited (formerly Pine Tree Furniture Ltd.) ....	810344	1991-1-15	
1991-1-10		Associated Audio Associates Limited ....	248328
Barrier Sciences Group Inc. (formerly Great Northern Systems Group Inc.) ....	902860	Caribbean Diesel Limited (formerly Tokmakjian Acquisitions Inc.) ....	898296
Cam and Muriel Robinson Holdings Ltd. (formerly Robinson's Paint & Wallpaper Ltd.) ....	331203	Chadwill Coal Company Limited ....	044752
Greycliffe Consultants Ltd. (formerly Aegis Chemco Ltd.) ....	803043	Corporation Group Inc. (formerly Corporation Fund Management Inc.) ....	839367
C. Haskett and Son Funeral Home Limited (formerly C. Haskett & Son Funeral Home and Furniture Limited) ..	312284	CU - Connection Limited ....	820367
Highland Ridge Developments Ltd. (911689 Ontario Limited) ....	911689	Dye & Durham Co. Inc. (formerly 915998 Ontario Inc.) ...	915998
Lawn Green Maintenance Inc. (formerly 911677 Ontario Limited) ....	911677	Farrish-Kingyens Direct Drywall Contractors Ltd. (formerly G.D.R. Delux Drywall Ltd.) ....	887259
Plumline Mechanical Limited (formerly Plumline Contracting Services Inc.) ....	517398	Frontier Computer Corporation ....	924923
Robinson's Paint & Wallpaper Inc. (formerly 911243 Ontario Ltd.) ....	911243	James Publishing Investments Limited ....	606678
St. Isidore Meats Inc./Viandes St. Isidore Inc. (formerly 421752 Ontario Limited) ....	421752	Lapidary Rose Inc. ....	706345
Sunnyside Corp. (formerly 872544 Ontario Limited) ....	872544	Lebon Gold Mines Limited ....	050723
1991-1-11		M.A. Karas Holding Ltd. ....	902583
Alfred Sung International Inc. (formerly 904143 Ontario Inc.) ....	904143	Machin Mines Limited ....	114476
Candraw Corporation (formerly 873554 Ontario Limited) ....	873554	Marileena Maternity Inc. (formerly Account-All Inc.) ....	618646
Dan Spencer Pest Prevention Practices Ltd. (formerly K.G. Spencer Pest Prevention Practices Ltd.) ....	479052	Maxwell's Dining Limited ....	426284
Elliott Acres Limited ....	478359	Mendelssohn Customs Brokerage Ltd. (formerly 918055 Ontario Limited) ....	918055
Gerry Bujold Insurance Agency Inc. ....	912615	Metro Waste Paper Recovery Inc. ....	526235
Lawrence of Arabia Ltd. (formerly 813977 Ontario Ltd.) ...	813977	Mitchell Concrete Co. Ltd. (formerly Mitchell Sealed Storage Ltd.) ....	705006
Mantara Construction Ltd. (formerly Mantara Const. Ltd.) ..	284943	Morningside (G.P.) II Inc. (formerly 696413 Ontario Limited) ....	696413
MHTI Inc. (formerly Stretch Packaging Systems International Inc.) ....	534459	Nancy Hennigar Investments Inc. ....	677824
Nafziger Investments Limited (formerly Nafziger of Brunner Limited) ....	155489	New World Indosuez Insurance Services (Ontario) Limited (formerly New World Indosuez Insurance Services Limited) ....	793559
Pelldren Limited (formerly Stephen Powell Consolidated Company Inc.) ....	471421	RCP Inc. ....	245985
Sunrock Ltd. (formerly 921093 Ontario Limited) ....	921093	Robert H. Cook Associates Ltd. ....	549153
T & C Aircraft Rebuilding Inc. ....	876885	Satluj Petroleum Ltd. ....	920494
Waterloo Furniture Components Limited (formerly Waterloo Metal Stampings Limited) ....	076775	SOTC Entertainment, Ltd. (formerly 847224 Ontario Limited) ....	847224
1991-1-14		Sunclad Enterprises Inc. (formerly 568590 Ontario Inc.) ....	568590
Alexmuir Nominees Inc. (formerly Tokyo Commodities & Futures Inc.) ....	912979	Uniglobe Catarauqui Travel Inc. ....	857031
Brushmate Corp. (formerly Dobbinwood Holdings Inc.) ...	866102	West London Paving Ltd. ....	311679
Canam Building Envelope Specialists Inc. (formerly Can-Am Air Leakage Control Systems Corporation) ....	434919	Yahn Realty Inc. ....	602725
Country Gourmet Fine Foods Inc. (formerly Country Gourmet General Store Inc.) ....	884413	218279 Ontario Inc. (formerly Dye & Durham Co. Limited) ....	218279
Croatian International Trading Corporation (formerly 925796 Ontario Inc.) ....	925796	333611 Ontario Inc. (formerly Skinner Sports (1976) Limited) ....	333611
Daniel J. Doucette Holdings Ltd. (formerly George Schell Holdings Ltd.) ....	317129	644961 Ontario Limited (formerly Slice of Life Limited) ...	644961
Exactduct Inc. (formerly Sky Heating & Cooling Inc.) ....	787007	648863 Ontario Inc. (formerly Dye & Durham Holdings Limited) ....	648863
FAG Bearings Limited ....	407758	923735 Ontario Limited ....	923735
Fergus Turnbull & Sons Limited ....	103722	1991-1-16	
Horsfall Management Inc. (formerly Solfall Inc.) ....	417878	Anchor Securities Limited	
		Les Placements Anchor Ltee ....	798336
		Automotive Tool Repair Inc. ....	661531
		B. W. Auto Repairs Inc. ....	562013
		Baker, Harris & Partners Limited (formerly Gerry Baker & Associates Limited) ....	423499

Name of Corporation Dénomination sociale	Ontario Corporation Number Numéro matricule de l'Ontario
Bhullar Auto Body Shop Inc. (formerly Coronation Auto Repair Ltd.)	812873
Carlyle Key Inc. (formerly Schipierre Limited)	910637
Cornard Holdings Corporation (formerly 925846 Ontario Inc.)	925846
Crown Industrial Machinery Ltd. (formerly CMT Leasing Ltd.)	745902
David C. Spencer Bailiff Services Inc. (formerly Lloyd's Bailiff Services Inc.)	896230
Dealer Communications Inc. (formerly Cajad Communications Inc.)	887152
Hap Wo Restaurant Ltd. (formerly Au Chai Kee Canton Restaurant Ltd.)	913078
Holancin Farms Limited	135726
J. Banducci Consulting Inc.	898577
Katherine Henry Pharmacy Ltd. (formerly Katherine Sage Drugs Ltd.)	526744
Levitt Insurance Brokers Ltd.	896428
The Marmon Corporation of Canada Ltd./ La Société Marmon du Canada Ltée (formerly The Marmon Corporation of Canada Ltd.)	886140
Panorama Conference Management Inc. (formerly Canadian Travel Resources Inc.)	734993
Perceco Inc. (formerly 599718 Ontario Inc.)	599718
Phase I Electric Ltd.	818791
Rancourt Business & Realty Services Inc. (formerly A.R. Racquet Club Marketing Inc.)	650284
Riverfront Square Limited (formerly 776737 Ontario Limited)	776737
Sar-Gin Developments (Sault) Limited	705965
Scott Bos. Farms Inc.	274692
Spring Creek Developments Inc. (formerly 908469 Ontario Ltd.)	908469
Tom Armstrong Ltd.	762749
Tri Dont Scarborough Management Inc.	542319
Trukcap Ltd.	381715
Vernon Information Industries Inc.	611272
Waterloo North Mazda Inc. (formerly 729752 Ontario Inc.)	729752
Westar Industries Inc. (formerly Weststar Industries Inc.)	916898
York Street Reversion Inc. (formerly 857228 Ontario Inc.)	857228
559376 Ontario Limited	559376
565712 Ontario Inc.	565712
668414 Ontario Inc.	668414
730639 Ontario Inc. (formerly Witten Interiors Inc.)	730639
857539 Ontario Limited 1991-1-17	857539
Accent Toronto Inc. (formerly 547966 Ontario Inc.)	547966
Albion Hills Forming & Construction Co. Ltd. (formerly Albion Hills Forming Co. Ltd.)	659939
Annesleywood Properties Limited	409624
AOF Manufacturing Inc. (formerly Atlas Office Furniture Inc.)	923643
The Bitove Corporation	713495
Consolidated-Bentpath Gas Supply Limited (formerly Kingsbridge Gas Supply Limited)	832815
Grand Distributors Inc. (formerly GAT Distributors Inc.)	888549
Croatia Machine Tool of Windsor Ltd.	402113
Flemming Carr Productions Inc. (formerly 843699 Ontario Ltd.)	843699
General Metal Products of Windsor Ltd.	405542
Heritage Interiors Incorporated (formerly 924992 Ontario Inc.)	924992
Hindmarsh Holdings (1988) Limited	782386
Intercity Industrial Supply (1980) Limited	897595
Jordan Hill Investments Limited (formerly 747353 Ontario Limited)	747353
Kesco Trading Corp. (formerly Euramex Trading Corp.)	898599

Name of Corporation Dénomination sociale	Ontario Corporation Number Numéro matricule de l'Ontario
Mr. Oxygen Inc. (formerly Capital Welding Products Inc.)	924171
Park-Edge Developments Limited	436601
Pert Insurance Brokers Inc.	896467
Sluis Specialty Meats Ltd. (formerly John Sluis Meat Products and Abattoir Ltd.)	615825
Sports Den Inc.	813962
Stebeck Inc. (formerly 818377 Ontario Limited)	818377
534294 Ontario Limited	534294
546139 Ontario Limited	546139
830497 Ontario Inc. (formerly Homecrest Cabinetry of Ontario Inc.)	830497
854730 Ontario Limited 1991-1-18	853730
Active Musical Products (1988) Ltd.	761477
Bioworld Holdings Ltd. (formerly Polydeuces Developments Ltd.)	923969
Blacking Holdings Ltd. (formerly Polydeuces Holdings Ltd.)	923970
Cancom-MCI Entertainment Group Inc.	818120
Canont Holdings Ltd. (formerly Polydeuces Investments Ltd.)	923968
Chimney Cricket Chimney Sweeps Inc. (formerly Devitt's Sales Promotion Inc.)	486677
Cook, Hawley, Marks Business and Financial Consultants Inc. (formerly Greenwood, Cook and Company Business and Financial Consultants Inc.)	800016
Cuckoo Clock Shop Inc. (formerly 387846 Ontario Ltd.)	387846
D.M.C.K. Industries Inc. (formerly Donmark Brothers Holdings Inc.)	772984
Distributed Matrix Controls Inc.	664773
Eastarose Ontario Limited	338094
Farl Properties Ltd. (formerly Nestra Holdings Inc.)	924978
The General Store Inc. (formerly Little Lanes Retail Company Limited)	716129
I.C.H. Investment Projects Inc. (formerly 8885 Woodbine-Markham Inc.)	910109
ISK Biotech Limited (formerly Fermenta ASC Limited)	802620
Kelsey's of Canada Limited (formerly 444579 Ontario Limited)	444579
Lyon's Recycling Inc. (formerly 766863 Ontario Inc.)	766863
McCurdy Radio Industries Limited	742631
McGill's Jewellers Ltd.	734645
Member of MacCosham Van Lines Ltd. (formerly 908132 Ontario Inc.)	908132
Polymathic Computer Corporation	491311
Ptero Holdings Ltd. (formerly Nestra Developments Ltd.)	924979
Purely Canadian Ltd. (formerly 745371 Ontario Limited)	745371
Pustul Properties Ltd. (formerly Nestra Investments Ltd.)	924948
Rox-West Holdings Ltd.	620466
Senex Consultants Inc. (formerly 892614 Ontario Ltd.)	892614
Serotine Developments Ltd. (formerly 925197 Ontario Inc.)	925197
Tesia Holdings Ltd. (formerly 925198 Ontario Inc.)	925198
Thackeray Roofing Company Ltd.	254505
Tournament Sports Marketing Inc.	628496
Truncal Holdings Ltd. (formerly 925199 Ontario Inc.)	925199
Westchester Capital Corporation (formerly Milvan Construction Limited)	124089
403378 Ontario Limited	403378
498101 Ontario Limited (formerly Remo Valente Real Estate Limited)	498101
763356 Ontario Inc.	763356
773274 Ontario Limited (formerly Newcastle Cement Block Co. Limited)	773274
839119 Ontario Ltd.	839119
923629 Ontario Limited 1991-1-21	923629
Aramis Engraving and Signs Limited	472301

Name of Corporation Dénomination sociale	Ontario Corporation Number Numéro matricule de l'Ontario
Austin Productions (Canada) Ltd.	
Les Sculptres Austin (Canada) Ltee. (formerly Austin Productions (Canada) Ltd.)	253882
Brenmo Equities Inc. (formerly 784838 Ontario Inc.)	784838
Canabilt Homes Ltd. (formerly 858140 Ontario Ltd.)	858140
Centra Gas Ontario Inc. (formerly ICG Utilities (Ontario) Ltd.)	649507
Charles Taylor Holdings Limited	769483
Cloke Office Products Inc. (formerly 915523 Ontario Inc.)	915523
Denroy Manufacturing Corporation (formerly Golden Shadow Resources Inc.)	50411
DWG Group Inc. (formerly D & W Greenspoon Automotive Supplies Inc.)	145488
Financial Task Force Inc. (formerly 918383 Ontario Limited)	918383
Fowler-Derbyshire Insurance Brokers Limited	836733
Giffels Limited	235182
Gravalos & Vallas Holdings Inc.	926406
Interworks Business Environments Inc. (formerly Interworks Interiors Consultants Inc.)	916451
Irving Taylor Holdings Limited	769484
Jac-An Formals Ltd.	504356
Ken L. MacArthur Transportation Ltd.	501980
KPP Holdings Inc. (formerly Duffus Motors Inc.)	668535
Lee's Nursery Inc. (formerly Lee's Fishery & Evergreen Trading Inc.)	690212
Marhoda Holdings Limited	669824
Sheilani Enterprises Co. Inc.	615024
Smales Hardware Ltd. (formerly Veitch Nursing Home Ltd.)	732792
WCP Financial Services Limited (formerly 720623 Ontario Limited)	720623
261060 Ontario Inc. (formerly Denroy Manufacturing Limited)	261060
783073 Ontario Inc. (formerly KPP Investments Inc.)	783073
899838 Ontario Inc. (formerly Vigers Ontario Realty Limited)	899838

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Articles of Revival Clauses de Reconstitution

NOTICE IS HEREBY GIVEN that, certificates of revival under the *Business Corporations Act, 1982* have been endorsed reviving the following corporations: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription, en vertu de la *Loi de 1982 sur les compagnies*, du certificat de reconstitution délivré en faveur des compagnies dont la liste, précédée de la date d'entrée en vigueur, figure ci-dessous :

Name of Corporation Dénomination sociale	Ontario Corp. No. Numéro matricule de l'Ontario
1990-12-19	
Remote Control Car Starter Inc.	573344
1990-12-20	
Dapco Management Ltd.	649209
1991-1-9	
Eresco Contracting Limited	609024
1991-1-10	
Arrival Enterprises Ltd.	493484
1991-1-11	
Eastarose Ontario Limited	338094
1991-1-14	
Lorraine Holdings Limited	284693

Name of Corporation Dénomination sociale	Ontario Corporation Number Numéro matricule de l'Ontario
1991-1-16	
Jerphil Investments Limited	617363
535599 Ontario Inc.	535599
625138 Ontario Limited	625138
1991-1-18	
Trinity Millenium Ltd.	541743

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Supplementary Letters Patent Issued Émission de Lettres Patentes Supplémentaires

NOTICE IS HEREBY GIVEN that under, the *Corporations Act*, Supplementary Letters Patent have been issued to: The effective date precedes the corporation Listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'émission de lettres patentes supplémentaires conforme à la *Loi sur les compagnies et associations* : la date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation Dénomination et siège sociale	Ontario Corp. No. Numéro matricule de l'Ontario
1990-11-14	
Ecuhome Corporation	580870
1991-1-7	
Ayr Skating Club (formerly Ayr Figure Skating Club)	617166
1991-1-9	
Kitchener Housing Inc.	684526
Orillia Lawn Bowling Club	500298

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

6/91

## Extra-Provincial Licences Endorsed Inscription de permis extraprovinciaux

NOTICE IS HEREBY GIVEN that, under Section 5 of the *Extra-Provincial Corporations Act, 1984*, Extra-Provincial Licences have been endorsed for: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription des permis extraprovinciaux suivants faite conformément à l'article 5 de la *Loi de 1984 sur les compagnies extraprovinciales*. La date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation and Jurisdiction of Incorporation: Dénomination sociale et autorité législative compétente :	Ontario Corp. No. Numéro matricule de l'Ontario
1990-12-12	
Zimpro Passavant Environmental Systems, Inc. Wisconsin	920373
1990-12-13	
Dornier Aviation (North America), Inc., Virginia	920383
Thoratec Laboratories Corporation, California	920382
1990-12-18	
Sankyu U.S.A., Incorporated, California	923051
1990-12-19	
Ashton-Tate Singapore PTE Ltd, Singapore	923045
Oakview Construction Inc., Iowa	923043

Name of Corporation and Jurisdiction of Incorporation: Dénomination sociale et autorité législative compétente :	Ontario Corp. No. Numéro matricule de l'Ontario
1991-1-9	
GN Danavox, Inc., Minnesota .....	907872
1991-1-11	
Roehl Transport, Inc., Wisconsin .....	920320
Slim-Fast Nutritional Foods International, Inc., Delaware ...	920366
Sonitrol Security Systems of Buffalo, Inc., New York .....	920363
1991-1-14	
Confab, Inc., Pennsylvania .....	920263
Humboldt Decanter, Inc., Georgia .....	920309
1991-1-16	
J.F. Lomma, Inc., New Jersey .....	923123
R. Becker Enterprises Incorporated, Michigan .....	923115
1991-1-17	
Tri-State Transportation Corporation, Iowa .....	923170

## Extra-Provincial Licences Terminated Résiliation de permis extraprovinciaux

NOTICE IS HEREBY GIVEN that, under Section 5 of the *Extra-Provincial Corporations Act, 1984*, termination of Extra-Provincial Licences have been endorsed for the following corporations: The date of termination precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription, en vertu de l'article 5 de la *Loi de 1984 sur les compagnies extraprovinciales*, de la résiliation des permis extraprovinciaux délivrés au nom des compagnies dont la liste, précédée de la date d'entrée en vigueur, figure ci-dessous :

Name of Corporation and Jurisdiction of Incorporation: Dénomination sociale et autorité législative compétente :	Ontario Corp. No. Numéro matricule de l'Ontario
1990-10-12	
GRM Construction, Inc., Texas 747784	
1990-12-11	
Hosiery Corporation International, Delaware .....	678480
1990-12-12	
Amax of Canada Limited, Delaware .....	143351

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

6/91

## Extra-Provincial Licences Amended Modification de permis extraprovinciaux

NOTICE IS HEREBY GIVEN that, under Section 5 of the *Extra-Provincial Corporations Act, 1984*, amendments to Extra-Provincial Licences have been endorsed for the following corporations: Date of amendment precedes the corporation listing.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription, en vertu de l'article 5 de la *Loi de 1984 sur les compagnies extraprovinciales*, de la modification des permis extraprovinciaux délivrés au nom des compagnies énumérées ci-dessous et dont la liste est précédée de la date d'entrée en vigueur :

Name of Corporation and Jurisdiction of Incorporation: Dénomination sociale et autorité législative compétente :	Ontario Corp. No. Numéro matricule de l'Ontario
1991-1-2	
Nachi Robotic Systems, Inc., Delaware .....	9230441990-11-27
Ioptex, Inc., California .....	671677

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Certificates of Dissolution Certificats de dissolution

NOTICE IS HEREBY GIVEN that a certificate of dissolution under the *Business Corporations Act, 1982* has been endorsed: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LA PRÉSENTE que, conformément à la *Loi de 1982 sur les compagnies*, un certificat de dissolution a été inscrit pour les compagnies suivantes : la date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation Nom de la compagnie	Ontario Corp. No. Comp. de l'Ontario n°
1990-12-11	
Shannon's Pantry Inc. ....	0476905
1990-12-12	
Alrom Limited .....	0077467
International Coin Display Systems Inc. ....	0662659
487835 Ontario Ltd. ....	0487835
600202 Ontario Limited .....	0600202
1990-12-13	
Sekulic Investments Ltd. ....	0609814
Tweedle Dee Games Inc. ....	0730848
1990-12-14	
Marcel G. Beaubien Insurance Ltd. ....	0367623
1990-12-17	
L & J Parent Limited .....	0362736
York Lighting (Canada) Limited .....	0864515
512768 Ontario Limited .....	0512768
1990-12-18	
Ohler Investments Limited .....	0155554
Ross Foote Travel Limited .....	0397653
364773 Ontario Limited .....	0364773
1990-12-19	
B and D Concrete Products Limited .....	0138166
December Realty Limited .....	0082963
Frog Creek Kennels Ltd. ....	0450278
Jack Martin Design Inc. ....	0202345
Jake's Auto Repairs Limited .....	0293966
Premium Insurance Executive Search Ltd. ....	0402838
1990-12-21	
D. Matthews Sales Agency Ltd. ....	0334456
First Protection Services Ltd. ....	0506645
467142 Ontario Limited .....	0467142
1990-12-24	
K-48 Inc. ....	0699560
1990-12-27	
James A. Rylance Trucking Ltd. ....	0447533
1990-12-28	
Chancery Manor Ltd. ....	0566809
1990-12-31	
563986 Ontario Inc. ....	0563986
1991-1-2	
Dominion-Planmac Consortium Inc. ....	0431617
1991-1-4	
Arthur Gauthier Contractors Limited .....	0297823
Da Vinci Men's Shop (Toronto) Inc. ....	0352556

Name of Corporation Dénomination sociale	Ontario Corporation Number Numéro matricule de l'Ontario
Magran Import-Export Ltd. ....	0730304
1991-1-9	
Glory To God Publishing Co. Inc. ....	0701368
Hodgins, Robinson & Wiggins Insurance Agencies Limited .....	0206180
664983 Ontario Limited .....	0664983
1991-1-10	
406081 Ontario Limited .....	0406081
789580 Ontario Inc. ....	0789580
813830 Ontario Limited .....	0813830
1991-1-11	
Bay Thorn Investments Limited .....	0428322
Fifth Line Furniture Gallery Inc. ....	0630066
139184 Ontario Limited .....	0139184
604326 Ontario Limited .....	0604326
756370 Ontario Inc. ....	0756370
1991-1-14	
Best Family Inc. ....	0799070
CO-ME Investments Limited .....	0206402
Malina Wong Ltd. ....	0759936
Nidia Investments Inc. ....	0252442
Watterworth & Anderson Limited .....	0130082
600881 Ontario Limited .....	0600881
1991-1-15	
Clifton Television Limited .....	0209073
Delhi Pharmacy Limited .....	0110010
296727 Ontario Limited .....	0296727
1991-1-16	
Andian National Corporation, Limited .....	0026070
Timarkanna Investments Inc. ....	0707534
387680 Ontario Inc. ....	0837680
837700 Ontario Inc. ....	0837700
1991-1-17	
Canjam Developments Limited .....	0212332
Hudbay Mining Ltd. ....	0228549
Hudbay Uranium Ltd. ....	0352268
1991-1-18	
Crusader Leasing Inc. ....	0609595
Crusader Leasing Limited .....	0273056
Fenmar Investments (1965) Limited .....	0145071
G.I.N.A. Management Limited .....	0314629
Grey Ronalds Smith Ltd. ....	0551965
Johnda Holdings Limited .....	0135218
Marmar Manufacturing Co. Limited .....	0079736
Port Talbot Farms Limited .....	0122634
Vital Sound Productions Limited .....	0132398
Wilmar Investments (1966) Limited .....	0145727
Y-Mar Investments Limited .....	0089387
660458 Ontario Limited .....	0660458
574610 Ontario Inc. ....	0574610
1991-1-21	
Tempel Canada Limited .....	0727416
1991-1-23	
Crawford Milk Transport Ltd. ....	0683007
JHR Equipment Limited .....	0615353

Name of Corporation Dénomination sociale	Ontario Corporation Number Numéro matricule de l'Ontario
1991-1-24	
Jencorp Inc. ....	0537622
Philri Construction Limited .....	0100786

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DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

## Decisions on Applications for Audit Exemption Décisions en matière de requête d'exemption

NOTICE IS HEREBY GIVEN that the Director has received applications for exemption from certain requirements of Part XII of the *Business Corporations Act, 1982* from the corporations named hereunder and has rendered her decision: Exemptions granted.

AVIS EST DONNÉ PAR LES PRÉSENTES que sur réception des requêtes formées par les compagnies mentionnées ci-dessous en vue d'obtenir l'exonération de l'application de certaines dispositions prescrites à la Partie XII de la *Loi de 1982 sur les compagnies*, la directrice s'est prononcée favorablement. Par conséquent, la dispense est accordée.

Name of Corporation Dénomination sociale	Ontario Corp. No. Numéro matricule de l'Ontario
1991-1-8	
Salada Inc. ....	775400
1991-1-9	
Dominion Simplicity Patterns Limited .....	335418
Ethicon Ltd./Ethicon Ltee .....	511533
Merkburn Holdings Limited .....	418250
1991-1-15	
Electronic Metalform Industries Limited .....	113234
Fujitsu Canada, Inc. ....	628829
Magnetic Metals Limited .....	124758
Manheim Auto Auctions Limited .....	557876
1991-1-16	
C & K Industrial Painting Inc. ....	380523
McCurdy Holdings Limited .....	150609
McCurdy Telecommunication Products Ltd. ....	277080
Oliver-MacLeod Limited .....	154393
Starcraft Recreational Products Limited .....	97833
Thomas Industries Corp .....	738872
1991-1-17	
Marley Canadian Inc. ....	547913
Stepan Canada Inc. ....	638800

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DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

## Notice of Default in Complying with the Corporations Tax Act Avis d'inobservation de la loi sur les corporations

The Director has been notified by the Minister of Revenue that the following corporations are in default in complying with the *Corporations Tax Act*.

NOTICE IS HEREBY GIVEN under subsection 240 (1) of the *Business Corporations Act, 1982* that unless the corporations listed hereunder comply with the requirements of the *Corporations Tax Act* within 90 days of this notice, orders will be made dissolving the defaulting corporations. All enquiries concerning this notice are to be directed to Corporations Tax Branch, Ministry of Revenue, 33 King Street West, Oshawa, Ontario, L1H 8H6.

Le ministre du Revenu a informé l'administrateur unique que les compagnies suivantes n'avaient pas respecté la Loi sur l'imposition des personnes morales.

AVIS EST DONNÉ PAR LA PRÉSENTE que, conformément au paragraphe 240 (1) de la *Loi de 1982 sur les compagnies*, si les compagnies citées ci-dessous ne se conforment pas aux prescriptions énoncées par la Loi sur l'imposition des personnes morales dans un délai de 90 jours suivant la réception du présent avis, lesdites compagnies se verront dissoutes par décision. Pour tout renseignement relatif au présent avis, veuillez vous adresser à la Direction de l'imposition des compagnies, ministère du Revenu, 33, rue King ouest, Oshawa (Ontario) L1H 8H6.

Ontario		Ontario		Ontario	
Name of Corporation	Corporation Number	Name of Corporation	Corporation Number	Name of Corporation	Corporation Number
Nom de la compagnie	Numéro matricule de la compagnie en Ontario	Nom de la compagnie	Numéro matricule de la compagnie en Ontario	Nom de la compagnie	Numéro matricule de la compagnie en Ontario
A S P Consultants Inc. ....	470159	Clarence T.V. & Stereo Inc. ....	329225	Home Automation Centre Inc. ....	739093
A.D.P. Stables Inc. ....	706023	Comprite Group Inc. ....	702089	Humanly Yours People For People Inc. ....	703058
A.L.M. Video Ltd. ....	702768	Computer Link Ltd. ....	704188	Hussain Of Canada Limited ....	264592
Ace Roofing Limited ....	070960	Courco Limited ....	704236	I & V Construction Ltd. ....	702014
Adkay Music Ltd. ....	444885	Creactive Inc. ....	703002	Insync Systems Group Ltd. ....	629815
Adrem Benefit Services Inc. ....	703067	Criminal Records Worldwide Inc. ....	701580	It's Blooming Magic Incorporated ....	702369
Adrien Simard Construction Limited ....	269770	Crusty Buns Bakeries Limited ....	531021	J. & S. Battaglia Bros. Limited ....	678555
Agras Bricklayers Ltd. ....	704333	D.C. Dawson Insurance Agencies Ltd. ....	690486	J. Paul Dubeau Ltd. ....	405017
Agriгато Construction Inc. ....	704718	D.M. Woodley Investments Limited ....	702188	Jackson Square Tri Dont Management Inc. ....	567390
AKW Auto Glass Inc. ....	703138	Da Vinci Tile Co. Ltd. ....	644626	Jacobs Robinson Investments Ltd. ....	703463
Alan Lawson & Partners Ltd. ....	701729	Davis & Henderson Limited ....	688634	Jason's Shop For Men Ltd. ....	399902
All Good Trading Company Inc. ....	648557	Deakin Pools Limited ....	609314	Jayne's Style Shoppe Ltd. ....	402104
Alpha/Aleph International Inc. ....	592576	Deboja Enterprises Incorporated ....	251898	Jeff Eamer & Associates Limited ....	705795
Andre's Roofing Limited ....	640706	Delamy Industries Inc. ....	702266	Jepscoe Inc. ....	698600
Appleleoon Florists Ltd. ....	697757	Deli-Quest Inc. ....	704242	John Darrock Audio Inc. ....	551007
Applewood Laboratories Inc. ....	533961	Deliberate Extravagance Jewellery Inc. ....	372522	Joles Production Services Ltd. ....	597630
Artistic Lite Sales Inc. ....	598267	Denise Castonguay Media Sales Inc. ....	704631	Joycourt Enterprises Inc. ....	704663
Asaria Property Holdings Inc. ....	704970	Diversified Purchasing Information Corporation ....	578055	Jurgen & Jurgen Enterprises Limited ....	655830
ASP Electronics Inc. ....	705673	Doctor Fence Inc. ....	698493	K.M. Friendly City Mart Inc. ....	702018
Bally Vaughan Investments Inc. ....	341923	Don's Lawnmower Sales And Service Inc. ....	422333	Kanzen Kempo Karatedo Ltd. ....	699189
Bascom International Inc. ....	702238	Door Northern & Eastern Investments Ltd. ....	702451	Keller Metal Systems Limited ....	705784
Bassai Western Inc. ....	703208	Dynamic Group Inc. ....	702909	Ken Munroe Contracting Inc. ....	624740
Beausoleil Island Shuttle Service Ltd. ....	668036	E. Wagman & Co. Limited ....	054004	Key Small Business Development Corporation ....	701420
Beckey's Boutique Inc. ....	699490	EIP Equipment & Safety Products Limited ....	649029	Kornsal Enterprises Limited ....	329288
Bentim Services Inc. ....	680110	Emerald Sea Publishers Incorporated ....	455874	L. White Enterprises Ltd. ....	541540
Berger Automobiles Inc. ....	318299	Emyson Incorporated ....	703903	Lampton Contracting Ltd. ....	586731
Berkmar Properties Ltd. ....	726034	Erieau Lands Limited ....	360723	Laurit Inc. ....	396240
Bernmar Holdings Limited ....	594666	Esortem Consultants Limited ....	318273	Leed Marketing Inc. ....	616059
Blue Pages Inc. ....	546427	Everspec International Inc. ....	703005	Liberty Insignia Corporation ....	704962
Blue Pool Investments Limited ....	394821	Every Detail Inc. ....	701096	Limited Point Investments Limited ....	488421
Blue Sling Construction Ltd. ....	704118	Extra-Clean Systems Inc. ....	705613	Living Lighting (1987) Ltd. ....	703168
Bonny Motors Ltd. ....	702745	Felliott Management Inc. ....	475395	Lyn-Wood Acres Inc. ....	288406
Border City Moving & Storage Inc. ....	476277	Finsys Software Solutions Inc. ....	701486	Maiella Investments Limited ....	286887
Bozwell Furniture Renting Inc. ....	702361	Fleischauer's Jewellers Limited ....	337360	Majel Management Limited ....	343765
Brantford Highway Service Station Limited ....	078944	Frank H. Bell Real Estate Ltd. ....	521438	Marco Polo Trading (International) Company Limited ....	702280
Brownstone Communications Group Ltd. ....	705327	Futrenology Inc. ....	701514	Mark Henshaw Salons Inc. ....	693320
Bynet Holdings Inc. ....	666561	Gagan Developments Inc. ....	697743	Master Ale Breweries Inc. ....	704843
Cam-All Photo Ltd. ....	704868	Galilee Food Co. Inc. ....	702848	Masters Homecare Services Ltd. ....	554342
Cambelltown Ltd. General Woodwork ....	413890	Ganaraska Car Wash Ltd. ....	703475	McFee Cole Hotels Limited ....	340695
Camp Arrowstar Inc. ....	633619	Garrod's Gas Bar & Restaurant Ltd. ....	581491	Melord Construction Co. Ltd. ....	655344
Canada Realities Limited ....	465044	Haak Tool & Die Limited ....	567400	Melyndan Holdings Inc. ....	700472
Canadian Custom Food Packers (Ontario) Ltd. ....	692163	Halton Vacuum Systems Ltd. ....	701543	Menu Cover Mfg. Ltd. ....	370176
Canadiana Drywall & Acoustics System Ltd. ....	704202	Happy Pizza Restaurant Ltd. ....	692173	Metalman Limited ....	330960
Charlie Getty Investments Limited ....	579680	Heathrose Management Limited ....	336063	Midwest Consultants Limited ....	154708
Charmante Designs Inc. ....	435028	High Quest Farms Ltd. ....	689919	Mmoda Boutique Limited ....	684785
Chayne Enterprises Incorporated ....	350260	Hike International Trading Co. Ltd. ....	704637	Monarch Appliance Service Ltd. ....	614243
Chimney Chums Inc. ....	699250	Hollywood/Canada Provideo Productions Inc. ....	705373	Moneda Management Inc. ....	518781

Name of Corporation	Ontario Corporation Number Numéro matricule de la compagnie en Ontario
Nom de la compagnie	
Monotype Processors Inc. ....	653898
MRMC Investments Inc. ....	692191
Ms. Souvenir Fashions Of Canada Inc. ....	523813
Music Exchange Ltd. ....	705228
Nasty's Wholesale Furniture Ltd. ....	699255
Navan Fencing Ltd. ....	503464
Norauto Reproductions Ltd. ....	702339
O'Reilly Truck Sales Inc. ....	702457
Omnicorp Systems Ltd. ....	654642
Oztech Corporation Inc. ....	686888
P.M.C. Health Care Inc. ....	705730
Palmisano Construction Company Limited ....	396974
Pamo Management Consultants Inc. ....	443954
Para Promotions Ltd. ....	469183
Pardensco Limited ....	584507
Pat Keaveney Fine Furniture Limited ....	236451
Patan Developments Limited ....	704821
Pauli's Metal Works Limited ....	569318
Peacock Shipping & Trading (Ontario) Limited ....	703132
Pearle Leasing Ltd. ....	704139
Pesco Services Limited ....	266584
Pine Island Software Inc. ....	699330
Poirier Holdings Limited ....	071569
Potterhouse Cafe & Donuts Ltd. ....	705725
Preferred Paper & Packaging Ltd. ....	701537
Primar Properties Limited ....	333918
Privette Communication Systems Inc. ....	704126
Prototype Machine Shop Ltd. ....	701461
Quality Blast Supply Ltd. ....	537377
Quickline Inc. ....	706044
R. R. Dubois Investments Limited ....	147082
R. S. S. D. Construction Ltd. ....	427050
Ram Enterprises Canada Inc. ....	702939
Ram's Tire And Auto Centre Ltd. ....	701160
Rapid Engineering Services Of Canada ....	759640
Ri-Flex Inc. ....	702953
Ribic Construction Inc. ....	704954
Richard Gale Inc. ....	282364
Richcon Management Inc. ....	566669
Riflessi Boutique Inc. ....	701480
Rivermede Tire Co. Limited ....	703179
RMG Associates Ltd. ....	580001
Roberto Della Torre Enterprises Inc. ....	614959
Rockwood Contracting Ltd. ....	578876
Roller Press Limited ....	393081
Ron Legroulx General Contracting Inc. ....	702093
Rosscan Distributing Inc. ....	639665
Ryan Ridge Inc. ....	697742
S&T Service And Repair Limited ....	603616
Sam-O-Rex Sales Ltd. ....	562283
Sarli Construction Co. Limited ....	219570

Name of Corporation	Ontario Corporation Number Numéro matricule de la compagnie en Ontario
Nom de la compagnie	
Seaway's Recreational Warehouse Ltd. ....	704707
Senok Food Services Limited ....	649320
Sheridan Medical Instruments Ltd. ....	503442
Silver Fox Tours & Travel Inc. ....	594255
Sincerely Yours Inc. ....	703406
Sisters Three Inc. ....	666563
Sleepy Hollow Properties Inc. ....	702254
Smith, Patten, Buchanan & Associates Limited ....	696377
Snowberry Exploration Limited ....	705692
Special Child Publications Limited ....	407244
Special Touch Contractors Inc. ....	503101
Spectralum Metals Limited ....	596904
Sports North Ltd. ....	677735
Stan Davidson Holdings Ltd. ....	702122
Streetside Cafes Inc. ....	704115
Sun Spec Investment Group Ltd. ....	701643
Superior Work Projects Inc. ....	703593
T.L.C. Marketing Inc. ....	501164
T&S Metro-Wide & Surrounding Areas Quality Printing & Bindery Services Inc. ....	617798
Tan Mar Renovations Inc. ....	698802
Tao-Fraser Films Inc. ....	704668
Tarts Galore Inc. ....	700966
Techsource Resources Inc. ....	537477
Tempriel Productions Incorporated ....	704172
Terbelle Enterprises Ltd. ....	422561
The Barter Way Trading Corporation ....	704752
The Brass Palace Inc. ....	704327
The Golden Kernel Inc. ....	444065
The Insurance Automation Network Inc. ....	702064
The Kleinburg Gallery Inc. ....	667780
The Para-Legal Practitioners Of Ontario Inc. ....	705688
The Professional Host In Canada Limited ....	266942
Three Mounts Investments Ltd. ....	701516
Three Star Men's Wear Limited ....	291956
Three Way Painting Limited ....	256908
Titanium Aerospace Corporation ....	704784
Triasa Group Of Investments Ltd. ....	704971
Trio Travel Company Limited ....	392589
Turnbull-Johnson And Company Limited ....	082184
Tutu Hi-Fashion Limited ....	346603
Unidoor Company Ltd. ....	706002
Unike Trio Enterprises Inc. ....	704340

Name of Corporation	Ontario Corporation Number Numéro matricule de la compagnie en Ontario
Nom de la compagnie	
V.P.C. Products Incorporated ....	537572
Vakil's Management Inc. ....	701586
Ventheulyner Holdings Inc. ....	689366
VHF Videotheatres Inc. ....	600124
Village Food Mart Inc. ....	636723
Way To Go Industries Limited ....	703158
We Two Enterprises Ltd. ....	695344
Web-Sheetfed Sales & Service Inc. ....	704677
West-Jovan Manufacturing Inc. ....	571263
Westman - Steel Ltd. ....	468427
Westmount Variety Limited ....	232005
William E. Miller Electric Limited ....	136725
Wing Cutters Inc. ....	705727
Wm. G. Mountjoy & Associates Insurance ....	295162
Agency Limited Wood Valley Hardwood Floors Inc. ....	701186
World Video Image Translator Inc. ....	643572
XRO Developments Inc. ....	657433
Your Floor Store Ltd. ....	613070
122772 Ontario Limited ....	122772
131632 Ontario Limited ....	131632
151 Thompson Road (London) Developments Inc. ....	696386
21St Century Furniture Ltd. ....	696557
407434 Ontario Limited ....	407434
438148 Ontario Inc. ....	438148
440161 Ontario Limited ....	440161
457123 Ontario Ltd. ....	457123
485095 Ontario Limited ....	485095
503471 Ontario Limited ....	503471
505489 Ontario Limited ....	505489
510476 Ontario Inc. ....	510476
512688 Ontario Ltd. ....	512688
516125 Ontario Inc. ....	516125
536486 Ontario Limited ....	536486
538871 Ontario Inc. ....	538871
539255 Ontario Limited ....	539255
541063 Ontario Limited ....	541063
547474 Ontario Inc. ....	547474
547561 Ontario Inc. ....	547561
555507 Ontario Inc. ....	555507
558143 Ontario Limited ....	558143
558804 Ontario Limited ....	558804
561586 Ontario Inc. ....	561586
573435 Ontario Limited ....	573435
593220 Ontario Inc. ....	593220
593759 Ontario Limited ....	593759
613083 Ontario Limited ....	613083
613358 Ontario Limited ....	613358
613869 Ontario Inc. ....	613869
616878 Ontario Limited ....	616878
626217 Ontario Limited ....	626217
626299 Ontario Limited ....	626299
629071 Ontario Limited ....	629071
641627 Ontario Limited ....	641627
642080 Ontario Limited ....	642080
643320 Ontario Ltd. ....	643320
643894 Ontario Limited ....	643894
645925 Ontario Inc. ....	645925

Name of Corporation	Ontario Corporation Number	Name of Corporation	Ontario Corporation Number	Name of Corporation	Ontario Corporation Number
Nom de la compagnie	Numéro matricule de la compagnie en Ontario	Nom de la compagnie	Numéro matricule de la compagnie en Ontario	Nom de la compagnie	Numéro matricule de la compagnie en Ontario
651083 Ontario Limited	651083	700927 Ontario Ltd.	700927	704284 Ontario Inc.	704284
653148 Ontario Inc.	653148	700933 Ontario Inc.	700933	704623 Ontario Ltd.	704623
653365 Ontario Inc.	653365	700962 Ontario Limited	700962	704646 Ontario Inc.	704646
655186 Ontario Limited	655186	701038 Ontario Limited	701038	704720 Ontario Limited	704720
657549 Ontario Inc.	657549	701039 Ontario Ltd.	701039	704760 Ontario Inc.	704760
657564 Ontario Inc.	657564	701111 Ontario Inc.	701111	704764 Ontario Inc.	704764
661639 Ontario Inc.	661639	701182 Ontario Inc.	701182	704766 Ontario Inc.	704766
663064 Ontario Inc.	663064	701206 Ontario Limited	701206	704824 Ontario Limited	704824
670282 Ontario Limited	670282	701490 Ontario Limited	701490	704829 Ontario Limited	704829
676301 Ontario Limited	676301	701576 Ontario Limited	701576	704885 Ontario Inc.	704885
680234 Ontario Inc.	680234	701595 Ontario Limited	701595	704913 Ontario Inc.	704913
681117 Ontario Inc.	681117	701642 Ontario Inc.	701642	704943 Ontario Inc.	704943
681127 Ontario Inc.	681127	702129 Ontario Limited	702129	704947 Ontario Inc.	704947
689343 Ontario Inc.	689343	702138 Ontario Corporation	702138	704985 Ontario Limited	704985
689351 Ontario Inc.	689351	702141 Ontario Limited	702141	704989 Ontario Limited	704989
689354 Ontario Inc.	689354	702154 Ontario Limited	702154	705216 Ontario Limited	705216
689359 Ontario Inc.	689359	702285 Ontario Inc.	702285	705226 Ontario Limited	705226
689362 Ontario Inc.	689362	702376 Ontario Limited	702376	705300 Ontario Limited	705300
689394 Ontario Ltd.	689394	702624 Ontario Inc.	702624	705307 Ontario Limited	705307
689554 Ontario Limited	689554	702631 Ontario Limited	702631	705317 Ontario Inc.	705317
691505 Ontario Inc.	691505	702636 Ontario Ltd.	702636	705328 Ontario Inc.	705328
692158 Ontario Inc.	692158	702835 Ontario Limited	702835	705617 Ontario Limited	705617
696167 Ontario Limited	696167	702989 Ontario Limited	702989	705656 Ontario Inc.	705656
696343 Ontario Inc.	696343	703001 Ontario Limited	703001	705667 Ontario Limited	705667
696344 Ontario Inc.	696344	703013 Ontario Limited	703013	705677 Ontario Limited	705677
697028 Ontario Limited	697028	703018 Ontario Inc.	703018	705752 Ontario Limited	705752
697032 Ontario Ltd.	697032	703209 Ontario Inc.	703209	706079 Ontario Inc.	706079
697903 Ontario Limited	697903	703225 Ontario Inc.	703225	711043 Ontario Limited	711043
698244 Ontario Limited	698244	703443 Ontario Limited	703443	724602 Ontario Limited	724602
698511 Ontario Limited	698511	703829 Ontario Inc.	703829	731478 Ontario Limited	731478
698808 Ontario Inc.	698808	704146 Ontario Limited	704146		
699043 Ontario Limited	699043	704194 Ontario Inc.	704194	DIANE S. NAGEL,	
699242 Ontario Limited	699242	704251 Ontario Limited	704251	Director, Companies Branch	
				6/91 Directrice, Direction des compagnies	

### Cancellation of Certificates of Incorporation (Corporations Tax Act Defaulters)

### Annulation de certificats de constitution en personne morale (Non-respect de la Loi sur l'imposition des personnes morales)

NOTICE IS HEREBY GIVEN that, under subsection 240 (3) of the *Business Corporations Act, 1982*, the Certificates of Incorporation of the corporations named hereunder have been cancelled by an Order dated 7 January, 1991 for default in complying with the provisions of the *Corporations Tax Act*, and the said corporations have been dissolved on that date.

AVIS EST DONNÉ PAR LA PRÉSENTE que, conformément au paragraphe 240 (3) de la *Loi de 1982 sur les compagnies*, les certificats de constitution en personne morale des compagnies dont les noms apparaissent ci-dessous ont été annulés par décision datée du 7 janvier 1991 pour non-respect des dispositions de la *Loi sur l'imposition des personnes morales* et que la dissolution des compagnies concernées prend effet à la date susmentionnée.

Name of Corporation	Ontario Corporation Number	Name of Corporation	Ontario Corporation Number	Name of Corporation	Ontario Corporation Number
Nom de la compagnie	Numéro matricule de la compagnie en Ontario	Nom de la compagnie	Numéro matricule de la compagnie en Ontario	Nom de la compagnie	Numéro matricule de la compagnie en Ontario
A.S.E. (London) Limited	376916	Alto's Fish & Chips Limited	684787	Balsam Janitorial Systems Inc.	685018
Aaero Communications Co. Ltd.	690012	Alula Corporation	549225	Ban-View Estates Limited	143839
Aardvark Pet World Ltd.	429133	Ambrose Graphics Group Inc.	574102	Beaver Disposals Limited	349035
Accurato Developments Limited	462719	Amercoeur Inc.	686082	Bee Industries Ltd.	506340
Adren Software Ltd.	683061	American Tour Group Inc.	569804	BNR Metallurgical Inc.	644137
Affidata Services Inc.	624110	Andre's Consulting & Management Corporation	399248	Boat & Float Inc.	729065
Affordable Relocation Services Ltd.	678969	Angie Cement Finishing Ltd.	497716	Border City Horse Transportation Inc.	538556
Ager Entreprises Ager Ltd.	685416	Anne Daniels Productions Inc.	687659	Bosun Investments Limited	201301
Aircare Corporation	658461	Arise Car & Truck Rentals Ltd.	601940	Bracegate Limited	686751
All Seasons Construction & Consulting Inc.	686191	Atuco Inc.	685490	Braco Enterprises Ltd.	529436
All-Can Financial Corp.	685437	Autoplus Service Centre Ltd.	637533	Brendyn Incorporated	398776

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°
Brick Manufacturing Ltd. ....	723507	Gerry's Carpentry Works Limited ..	294502	Majestic Court Developments Corporation .....	687073
Brilor Holdings Inc. ....	684660	Giorillas Holdings Limited .....	687210	Manhing Manufacturing Inc. ....	570134
Brock's Excavating & Grading Ltd. .	670561	Glistening Sand Investments Ltd. . .	685632	Maple Block Renovations Inc. ....	600788
Browning Communications Canada Inc. ....	685704	Global Enterprises (Canada) Inc. ...	568321	Mark Stokes Construction Ltd. ....	685651
Butcher Delight Limited .....	568421	Globestock Inc. ....	315491	Mast Construction (Ontario) Inc. ...	683176
Byng Pool Services Limited .....	457437	Goldie-Jean Corporation Limited ..	058184	Matrix Custom Builders Inc. ....	685641
Byrne, Johansson, Paquin, Roussel Inc. ....	636189	Gray Technologies Corporation ...	685255	Mayrato Inc. ....	642232
Bywin Management Inc. ....	572403	Greenway Building Services Incorporated .....	569000	Mercer & Osborne Inc. ....	601632
Cafe-Bar (Canada) Inc. ....	685171	Greenwood Flower Shop Ltd. ....	601161	Metal-Flex Ltd. ....	391897
Calbri Management Corp. ....	679685	Group 235 Inc. ....	678941	Metro Urban Properties Ltd. ....	346298
Calendar-Art Products Inc. ....	671550	Gus Roofing Inc. ....	600655	Metromarketing Inc. ....	570329
California Shutters (Canada) Inc. .	687122	Guy-Can Promotion And Investments Inc. ....	686345	Metropolitan Academy Of Music (York) Ltd. ....	686138
Canada-Naturally Yogurt Inc. ....	684706	Halton Muffler Ltd. ....	341266	Michelle Marketing Inc. ....	678988
Canadian Classic Contractors Inc. .	687006	Ham & Cheese Developments Inc. .	688275	Modular Fresh Air Control Technology Inc. ....	686010
Candid Mold Finishing Ltd. ....	461097	Hay's Travel Tours Inc. ....	597917	Moroney Engineering Design Inc. .	601778
Car-Man Service Centre Inc. ....	395935	Hazelton Limousine Service Ltd. ...	687382	Multi-Dimensional Business Computer Systems Ltd. ....	684965
Card-Ads Systems Inc. ....	695552	Highfield Holdings Inc. ....	684613	Multi-Venture Investments Group Inc. ....	681357
Carleton Wholesale Limited .....	058046	Hotel Link Transportation Ltd. ....	688284	N.J. Walker Insurance Adjusters Ltd. ....	575506
Carole's Wholesomotion Centre Ltd. .	612201	Hulcam Holdings Limited .....	303109	Nico Family Clothing Centre Limited .....	458635
Casey Travel Services Inc. ....	685206	Hybis Inc. ....	686065	Nikki's Workouts Inc. ....	525410
Castle Court Acquisitions & Investments Corporation .....	687072	Hydro-Jet Leisure Products Inc. ...	653822	Nixon-Luke Properties Design And Development Inc. ....	685728
Ceranco Electric Ltd. ....	685280	Independent Travel Agencies (I.T.A.) Inc. ....	526706	North Tire & Rubber Inc. ....	657498
Champion Exports Inc. ....	679702	Info-Tech Mailroom Systems Ltd. .	678932	Northam Lubricants Inc. ....	542447
Chriskom Enterprises Inc. ....	684909	Interborough Electric (Ontario) Inc.	508033	Nu Covenant Holdings Ltd. ....	679000
Christie Hansen Interiors Ltd. ....	459210	International Television Communications Inc. ....	569424	Old Cotton Mill Flea Market Ltd. .	688536
Claymore Investments Inc. ....	683141	Interpersonal Publications Limited .	207405	Olympia Auto Sales & Service Inc. .	643028
Computeacher Limited .....	216536	Iona Travel Service Limited .....	684977	Ominik Timber Products Co. Ltd. .	657499
Computersoftware Plus Inc. ....	568871	IPAC Dental Inc. ....	687652	Ontario Outdoors Retail Sporting Goods Ltd. ....	645111
Concept V Business Consultants Ltd.	691916	Irving Resources Ltd. ....	570499	Oritur Developments Limited .....	292931
Conklin Lumber Company Limited ..	103725	Ivan Shaw & Co. Ltd. ....	248836	Our Home Carpentry & Insulation Corp. ....	367300
Coray Industrial Sales Limited ....	118007	J W Calderwood Real Estate Ltd. .	369476	P Lock Holdings Inc. ....	683076
Coreys Dinette Inc. ....	690378	J. S. C. Investments Inc. ....	518991	P. Charles Veaudry Inc. ....	437048
Crown Dome Corporation .....	687693	Jac Van Den Berg Investments Limited .....	345170	Parlicorp Limited .....	686239
Custom Auto Repair Inc. ....	644124	Jared Holdings Limited .....	215283	Perfection Aire (Ottawa) Ltd. ....	685216
Cyacon Contracting Limited .....	280125	Jay-J' Ai Store Fixtures Inc. ....	682551	Piaff Hair Group Inc. ....	688533
DEK (Canada) Inc. ....	686702	Jeffrey Daw Holdings Inc. ....	641730	Pin Prince Corp. ....	602832
Direct Telecoms Services Inc. ....	684735	Jogging Productions Limited .....	496388	Pinjet Diecasting Co. Ltd. ....	684874
Distinguished Painters Inc. ....	685219	John C. McDonald Realty Ltd. ....	663778	Pirrana Franchise Corporation ....	568038
Doug Bone Holdings Ltd. ....	404621	John Jackson Insurance Agencies Inc. ....	640987	Plastics Holdings Limited .....	686186
Doyner Holdings Limited .....	601591	Jubilee Impex (1986) Inc. ....	688270	Plastifax Inc. ....	687279
Dynamic Compliments Inc. ....	684661	Just Sports Limited .....	355370	Platis At Victoriapark And Morecambe Inc. ....	687673
E. T. Cole Photographic Enterprises Ltd. ....	429335	K T R Developments Ltd. ....	329920	Pot Of Gold Chinese Restaurant Ltd. ....	601835
Ecoplastics Limited .....	239316	K.E.S. Construction Inc. ....	526717	Presti Food Market Inc. ....	399524
Eike Teutloff Construction Limited .	215192	Kello Investments Inc. ....	643018	Pro-Can Consultants Inc. ....	645300
Emile Ianiris Import-Export Inc. ...	597608	Kingbeco Company Limited .....	688039	Professional Texture Systems Incorporated .....	316102
Entreprise Bellevue (Welland) Limited .....	264667	Kitchen Catering Services Limited .	090524	Proquip Gt Services Inc. ....	686244
Esperanto Auto Repair Centres Inc.	642661	Knee Pads For The Working Girl Inc. ....	602238	Punters Group Limited .....	678938
Ettorre Management Limited .....	688333	Krazy Kat Inc. ....	686293	Pure Mountain Springs Limited ....	683486
European Exclusives, Inc. ....	686042	Kymen Developments Co. Ltd. ....	605905	Quinte Bumper & Fender (Toronto) Ltd. ....	687374
Evergreen Investment Company Ltd. ....	686791	L.S. Marketing Inc. ....	496421	R. Flear & Associates Ltd. ....	460471
Factory Window Coverings Inc. ....	688437	L'Onesta Drapery Ltd. ....	527417	Ramaso Holdings Incorporated ....	687076
Ferne & Dennis Holdings Limited .	493997	La Duree Antiques & Interiors Ltd. .	713490	Ramzi's Fine Foods Corporation ...	605701
First Canadian Ticket Agencies Limited .....	392758	Laurier Property Management Ltd. .	430353	Rangate Holdings Inc. ....	686231
First Davichas Inc. ....	687662	Lee-Layne Construction Limited ...	135754	RAS Building Maintenance & Contracting Ltd .....	684638
First Lady Spa Inc. ....	683085	Lone Star Production And Driver Services Ltd. ....	684160	Ravenscroft Incorporated .....	585323
Fisher-Weir Incorporated .....	434110	Lucy's Sewing Centre Limited ....	460626		
Flor-Can Express Inc. ....	686252	M&S Model Trains & Parts Inc. ...	430632		
Fort Erie Plymouth Chrysler Ltd. .	601477	MacOr Management & Holding Co. Limited .....	641611		
G. Dewolf Shaw Consulting Limited .....	481509	Mad Hair Co. Ltd. ....	517534		
G&R Advanced Electronic Designs Inc. ....	428506	Maitland Investments Inc. ....	686623		
Georgetown Heritage Development Corporation .....	685702	Maize & Blue Investments Inc. ....	684645		

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Raymond Poster Enterprises Limited	238661	TW Mac Investments Ltd.	685106	642033 Ontario Limited	642033
Regional Indcomm Development Ltd.	686629	Ulema Incorporated	397838	642223 Ontario Limited	642223
Results Realty Un Limited	684826	United Bancorp Limited	683135	642512 Ontario Limited	642512
Rufrano Mechanical Ltd.	688639	Uro-Onc Limited	686258	642994 Ontario Ltd.	642994
Sacomat Canada Corporation	687629	Video Goes Hollywood Inc. II	642610	643074 Ontario Inc.	643073
Safety Concept Inc.	552587	Video Pix Inc.	563083	643806 Ontario Ltd.	643806
Samuel Schneider Holdings Inc.	412952	Vincent's Place Inc.	330932	646449 Ontario Ltd.	646449
Scriptonics Corporation	238383	Walworth Management Incorporated	346716	662504 Ontario Ltd.	662504
Seagull Sailboats Limited	200502	Watts Property Maintenance Limited	494423	670320 Ontario Inc.	670320
Seam Electronics Inc.	601372	Webak Investments Inc.	685502	670570 Ontario Inc.	670570
Second Street Publishing Inc.	690820	Webbed Footage Inc.	602630	678929 Ontario Inc.	678929
Sensay Systems Inc.	601946	Whattam Realty Inc.	416133	678952 Ontario Limited	678952
Sertina Jewellery Ltd.	686632	Wiesmark Restaurants Ltd.	635537	679676 Ontario Inc.	679676
Seven Stars Shoe Company Inc.	684166	Winner Response Technologies Inc.	716908	679703 Ontario Limited	679703
Shani International (Canada) Limited	687384	Wolff Charters Limited	605552	679705 Ontario Inc.	679705
Silvio Russo Industrial Designers Limited	493132	Woo-Fat Investments Limited	374336	679716 Ontario Limited	679716
Skyway Construction Inc.	685624	Wycan Ltd.	683112	681379 Ontario Limited	681379
Smokey Texan Inc.	683014	ZDYB Realty Consultants Inc.	527322	681390 Ontario Inc.	681390
Soley Sporting Supplies Inc.	668424	Zebec Investments Limited	388537	681584 Ontario Limited	681584
Someplace Special Inc.	684825	Zemur Financial Inc.	679708	683038 Ontario Limited	683038
Sophia's Fine Linens Inc.	735792	Zorko Signs Ltd.	648199	683062 Ontario Limited	683062
Spader Investments Limited	685419	220 St. Paul Holdings Inc.	659433	683137 Ontario Inc.	683137
Spevco Holdings Limited	643804	332897 Ontario Limited	332897	683414 Ontario Inc.	683414
Sportoids Marketing Ltd.	430089	359420 Ontario Limited	359420	683428 Ontario Inc.	683428
St. Ives Inc.	686701	368531 Ontario Limited	368531	683429 Ontario Inc.	683429
Stedy Limited	085460	389037 Ontario Ltd.	389037	683430 Ontario Inc.	683430
Stephen C. Miller & Associates Limited	346737	398738 Ontario Limited	398738	683459 Ontario Inc.	683459
Stewart Gage Holdings Inc.	647973	398826 Ontario Ltd.	398826	683468 Ontario Inc.	683468
Studio Studios Photography Inc.	684626	406760 Ontario Limited	406760	683501 Ontario Limited	683501
Suchard Communications Limited	643020	412283 Ontario Limited	412283	683503 Ontario Inc.	683503
Superior Carpets & Service Ltd.	684868	412284 Ontario Limited	412284	683504 Ontario Limited	683504
Surefind Systems Inc.	686066	413433 Ontario Limited	413433	683518 Ontario Inc.	683518
T And L Phoenix Group Ltd.	691622	428327 Ontario Limited	428327	683519 Ontario Limited	683519
T.C.L. Contracting Inc.	564932	428522 Ontario Inc.	428522	684426 Ontario Limited	684426
T&T Linen Supply Ltd.	686655	429323 Ontario Limited	429323	684482 Ontario Limited	684482
Telecover International Incorporated	686075	442398 Ontario Inc.	442398	684500 Ontario Limited	684500
Terragreen Landscaping Ltd.	686400	461906 Ontario Limited	461906	684520 Ontario Limited	684520
Thadcor Management Limited	429407	485224 Ontario Limited	485224	684682 Ontario Limited	684682
The Archangel Press Inc.	688820	496324 Ontario Limited	496324	684718 Ontario Limited	684718
The Canadian Fashion Alliance Inc.	641660	499725 Ontario Limited	499725	684730 Ontario Inc.	684730
The Cimi Group Inc.	687376	509712 Ontario Limited	509712	684842 Ontario Ltd.	684842
The I.M.P.A.C.T. Group Inc.	729630	510113 Ontario Limited	510113	684854 Ontario Inc.	684854
The International Security Fire And Safety Exhibition Incorporated	688255	539017 Ontario Inc.	539017	684896 Ontario Inc.	684896
The Kitchen Perspective Ltd.	685793	539209 Ontario Limited	539209	684910 Ontario Limited	684910
The Luggage Loft Limited	657514	539243 Ontario Limited	539243	684920 Ontario Inc.	684920
The Rosswen Investment Corporation	365023	548997 Ontario Inc.	548997	684978 Ontario Inc.	684978
The Sports Marketing Group Ltd.	643001	552667 Ontario Inc.	552667	685001 Ontario Limited	685001
The Vertical Factory Inc.	683151	564909 Ontario Limited	564909	685062 Ontario Limited	685062
Thornhill Auto Sales & Service Inc.	684185	564914 Ontario Limited	564914	685093 Ontario Inc.	685093
Ticketing Holdings Incorporated	686276	569129 Ontario Inc.	569129	685111 Ontario Ltd.	685111
Tiner Estates Ltd.	460312	596086 Ontario Limited	596086	685151 Ontario Limited	685151
Tool Steel Hardened Products Sales (Eastern) Limited	206177	597435 Ontario Inc.	597435	685239 Ontario Limited	685239
Trail-A-Bout Inc.	687805	597696 Ontario Inc.	597696	685249 Ontario Ltd.	685249
Tranz Auto Rentals Inc.	684767	597876 Ontario Ltd.	597876	685510 Ontario Inc.	685510
Tri Paralegal Services Inc.	688165	598012 Ontario Inc.	598012	685537 Ontario Limited	685537
Tri-Aide Enterprises Inc.	614938	600609 Ontario Limited	600609	685576 Ontario Ltd.	685576
Tri-Home Systems Marketing Inc.	685423	600712 Ontario Inc.	600712	685701 Ontario Limited	685701
Trigen Eastern Instruments Inc.	740252	601053 Ontario Limited	601053	685708 Ontario Ltd.	685708
Trimarine (Canada) Ltd.	401208	601625 Ontario Inc.	601625	685717 Ontario Limited	685717
Tritech Technologies Inc.	686005	602625 Ontario Limited	602625	685726 Ontario Limited	685726
		605075 Ontario Limited	605075	685757 Ontario Inc.	685757
		607738 Ontario Inc.	607738	685764 Ontario Limited	685764
		637281 Ontario Ltd.	637281	685817 Ontario Ltd.	685817
		637732 Ontario Inc.	637732	686025 Ontario Inc.	686025
		637871 Ontario Inc.	637871	686067 Ontario Limited	686067
		640280 Ontario Inc.	640280	686073 Ontario Ltd.	686073
		640340 Ontario Inc.	640340	686097 Ontario Limited	686097
		640490 Ontario Inc.	640490	686213 Ontario Limited	686213
				686268 Ontario Limited	686268
				686304 Ontario Limited	686304

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686333 Ontario Limited .....	686333	687725 Ontario Limited .....	687725	688301 Ontario Limited .....	688301
686340 Ontario Limited .....	686340	687736 Ontario Limited .....	687736	688323 Ontario Limited .....	688323
686625 Ontario Limited .....	686625	687746 Ontario Ltd .....	687746	688362 Ontario Ltd .....	688362
686633 Ontario Limited .....	686633	687826 Ontario Inc. ....	687826	688382 Ontario Inc. ....	688382
687028 Ontario Limited .....	687028	688021 Ontario Limited .....	688021	688531 Ontario Limited .....	688531
687121 Ontario Limited .....	687121	688044 Ontario Incorporated .....	688044	688819 Ontario Inc. ....	688819
687250 Ontario Limited .....	687250	688087 Ontario Ltd. ....	688087	735789 Ontario Inc. ....	735789
687259 Ontario Limited .....	687259	688097 Ontario Inc. ....	688097	740777 Ontario Inc. ....	740777
687339 Ontario Limited .....	687339	688099 Ontario Limited .....	688099		
687607 Ontario Ltd .....	687607	688151 Ontario Limited .....	688151	DIANE S. NAGEL,	
687621 Ontario Limited .....	687621	688170 Ontario Inc. ....	688170	Director, Companies Branch	
687657 Ontario Inc. ....	687657	688173 Ontario Limited .....	688173	6/91 Directrice, Direction des compagnies	
687682 Ontario Inc. ....	687682	688226 Ontario Limited .....	688226		
687718 Ontario Limited .....	687718	688289 Ontario Limited .....	688289		

## Change of Name Act Loi sur le changement de nom

NOTICE IS HEREBY GIVEN that the following changes of name were granted during the week ending January 18th, 1991. The listing below shows the previous name followed by the new name.

AVIS EST PAR LA PRÉSENTE DONNÉ que les changements de noms suivants ont été accordés au cours de la semaine se terminant le 18 janvier 1991. La liste ci-dessous indique les anciens noms suivis par les nouveaux noms.

Abergel, Crissy, Freda — Mirsky, Crissy, Freda  
 Abitong, Nora, Jane — Abitong-Eshkakogan, Nora, Jane  
 Ackland, Kristin, Angela — Boyd, Kristin, Angela  
 Adam, Zarina, Ahmed — Khanat, Zarina, Yusuf  
 Adi, Sylvia, Rose, Marie — Ford, Sylvia, Rose, Marie  
 Afelskie, Christine, Anne — Rowe, Christine, Anne  
 Ahearn, Lisa, Marie — Nickle, Lisa, Marie  
 Airth, Judith, Elizabeth — Davies, Judith, Elizabeth  
 Albiston, Janice, Eva, Marie — Hughes, Janice, Eva, Marie  
 Alblas, Elizabeth, Christina, Marlene — Lodewyks, Elizabeth, Christina, Marlene  
 Alexander, Jonquille, Faith — Brown, Jonquille, Faith  
 Ali, Zaniebia — Ali-Harkin, Zaniebia  
 Allan, Diana, Lynne — Vanhoek, Diana, Lynne  
 Allan, Patricia, Dawn — Wisniewski, Patricia, Dawn  
 Allen, Carolyn, Elizabeth — Kustec, Carolyn, Elizabeth  
 Amos, Kathi, Yvonne — Amos-Baumont, Kathi, Yvonne  
 Anderson, Cindy, Lee — McFadden, Cindy, Lee  
 Anderson, Donna, Marie — Logan, Donna, Marie  
 Anderson, Linda, Dianne — Fildes, Linda, Dianne  
 Anderson, Mary, Pauline, Chrystal — Knox, Mary, Pauline, Chrystal  
 Andre, Brenda, Lee — Dupuis, Brenda, Lee  
 Angevine, Cindy, Frances — Wales, Cindy, Frances  
 Antal, Susan, Anne — Colpitts, Susan, Anne  
 Appleton, Sharon, Allison — Montgomery, Sharon, Allison  
 Armfield, Terry, Elizabeth — Legenza, Terry, Elizabeth  
 Aspirot, Marie, Denise, Colette — Fleury, Marie, Denise, Colette  
 Aubin, Edith, Line — Gosine, Edith, Line  
 Babayan, Lily, Moushekh — Manoukian, Lily, Moushekh  
 Babineau, Susan, Elizabeth — Sutherland, Susan Elizabeth  
 Bachert, Heidi-Joanne — Bachert-Burke, Heidi, Joanne  
 Bains, Kiran, Natasha — Shergill, Kiran, Natasha  
 Baker, Karen, Leigh — Wilson, Karen, Leigh  
 Baker, Rita, Irene — Prudhomme, Rita, Irene  
 Bamber, Tamara, Lynn — Bodman, Tamara, Lynn  
 Barany, Laurie, Ann — Allen, Laurie, Ann  
 Barber, Katherine, Anne — Compagnoni, Katherine, Anne  
 Barker, Kim, Elizabeth — McLean, Kim, Elizabeth  
 Barker, Kimberley, Dawn — Jamer, Kimberley, Dawn  
 Barnoski, Angela, Laura — Campbell, Angela, Laura  
 Barrett, Carolyn, Elizabeth — Henderson, Carolyn, Elizabeth

Bates, Sherry, Lynn — Davis, Sherry, Lynn  
 Baxter, Marianne, Louise — Ventrone, Marianne, Louise  
 Beamish, Lori — Houle, Lori  
 Beaulieu, Frank, Joseph — Arsenault, Frank, Joseph  
 Becher, Doris, Barbara — Becher Nienhaus, Doris, Barbara  
 Beckford, Carlene, Andrea — Williams, Carlene, Andrea  
 Belbeck, Dianna, June — Eakins, Dianna, June  
 Belrose, Bobbi, Marie — Poulton, Bobbi, Marie  
 Benham, Joanne, Marie — Rennick, Joanne, Marie  
 Bernard, Rhonda, Lee, Dionne — Quaresma, Rhonda, Lee, Dionne  
 Bertasson, Diana, Patrice — MacLean, Diana, Patrice  
 Bertol, Lorraine, Janetta — Bertol-Kress, Lorraine, Janetta  
 Bethune, Jennifer, Rose, Marie — Coward, Jennifer, Rose, Marie  
 Bilyea, Cheryl, Elaine — Rowe, Cheryl, Elaine  
 Birchard, Sherry, Lee — Birchard-Andaloro, Sherry, Lee  
 Birchmore, Stephanie, Ann — Hansen, Stephanie, Ann  
 Bitz, Francine, Lina — Lynhiavu, Francine, Lina  
 Bjerre, Linda, Solveig — Danner, Linda, Solveig  
 Blair, Patricia, Jean — Lacelle, Patricia, Jean  
 Blanchard, Patricia, Dianne — Perry, Patricia, Dianne  
 Bodrug, Susan, Mary — Chopin, Susan, Mary  
 Bolton, Lynne, Loretta, Mary — Causgrove-Carter, Lynne, Loretta, Mary  
 Bolton, Pamela, Heather — Dixon, Pamela, Heather  
 Bonny, Gloria, Louise — Splawinski, Gloria, Louise  
 Boon, Golda, Rosetta — Horton, Golda, Rosetta  
 Bosacki, Patricia, Angela, Antoinette — Schwartz, Patricia, Angela, Antoinette  
 Boulet, Kristin, Ruth-Anne — Broersma, Kristin, Ruth-Anne  
 Boulton, Barbara, Darlene — Conrad, Barbara, Darlene  
 Bowlby, Carolyn, Judith — Bowlby Mollenhauer, Carolyn, Judith  
 Boyd, Anne, Marie — Puterman, Anne, Marie  
 Boyles, Michael, Norman — Masterson, Michael, Norman  
 Bradley, Lynn, Ariel — McEachern, Lynn, Ariel  
 Braun, Monika, Lilly — Danis, Monika, Lilly  
 Bray, Elizabeth, Jane — Gingras, Elizabeth, Jane  
 Brettell, Julia, Dorothy — Stechly, Julia, Dorothy  
 Brideau, Elizabeth, Michelle — Penner, Elizabeth, Michelle  
 Bridges, Tracey, Lynn — Adams, Tracey, Lynn  
 Bronstein, Melissa, Jill — Allen, Melissa, Jill  
 Bronstein, Stacey — Allen, Stacey, Lyne  
 Brooks, Kelly-Ann — Hawkins, Kelly-Ann  
 Brown, Julie, Anne — Nicholson, Julie, Anne  
 Brown, Theresa, Lynn — Gadd, Theresa, Lynn  
 Burton, Diane, Elizabeth — Handley, Diane, Elizabeth  
 Byrne, Robyn, Trish — Nolte, Robyn, Trish  
 Cairns, Margaret — Bixby, Margaret  
 Caissie, Marie, Winifred, Anne — Mellema, Marie, Winifred, Anne  
 Callon, Tracy, Ann — Murphy, Tracy, Ann  
 Cameron, Lisa, Frances — Holmes, Lisa, Frances  
 Campbell, Susan, Elizabeth — Hammond, Susan, Elizabeth  
 Cann, Patricia, Lynn — Vig, Patricia, Lynn  
 Cargill, Michelle, Susan — Batt, Michelle, Susan

- Carley, Judith, Carol — Van Everdingen, Judith, Carol  
 Carr, Michele, Lorna — Dunphy, Michele, Lorna  
 Carre, George, Romeal — Carrey, Romeal, Romeo  
 Carroll, Mary, Ann — Chamberlain, Mary, Ann  
 Carson, Janice, Elizabeth — Cioria, Janice, Elizabeth  
 Carter, Madeleine, Anne — McInnis, Madeleine, Anne  
 Carter, Nancy, Lynn — Carter-Helps, Nancy, Lynn  
 Celebi, Zulal, Binnur — Cartmell, Zulal, Binnur  
 Chaisson, Barbara, Marie — Young, Barbara, Marie  
 Chalupa, Patricia, Ann — Chalupa-Iwasykiw, Patricia, Ann  
 Chan, Chi, Wah — Quan, Chi, Wah  
 Chang, Janet — Chin, Janet  
 Chapman, Donna, Louise — Brown, Donna, Louise  
 Chapple, Nancy, Winnifred — Chapple-Thomas, Nancy, Winnifred  
 Charbonneau, Marie, Gilberte, Claire — Bertrand, Marie, Gilberte, Claire  
 Charney, Cheryl, Elaine — Charney-Machtinger, Cheryl, Elaine  
 Chaulk, Wendy, Lee — Hatherley, Wendy, Lee  
 Chenery, Jill, Anne — Lehman, Jill, Anne  
 Chiasson, Roxanne, Cecile — Jacobs, Roxanne, Cecile  
 Chiasson, Suzanne, Marie — Hillier, Suzanne, Marie  
 Christidis, Mary — Traikos, Mary  
 Ciamarra, Maria, Concettina — Feast, Maria, Concettina  
 Clark, Michele, Rose — Helm, Michele, Rose  
 Clark, Wendy, Elizabeth — Chreptyk, Wendy, Elizabeth  
 Clarke, Holly, Anne — Corrigan, Holly, Anne  
 Clarke, Katherine, Georgena — Hughes, Katherine, Georgena  
 Clarke, Peggy, Jean — Sinclair, Peggy, Jean  
 Clement, Mary, Michele, Louise — Conlin, Mary, Michele, Louise  
 Coady, Sharon, Anne — Holzman, Sharon, Anne  
 Coert, Deborah, Leigh — Barton, Deborah, Leigh  
 Colacito, Anna — Morgado, Anna  
 Coleman, Laurie, May — McDougall, Laurie, May  
 Coleman, Robert, Alan — Coleman, Robert, Christmas  
 Coleman, Shelley, Anne — Gable, Shelley, Anne  
 Coles, Lori, Ann — Burke, Lori, Ann  
 Collin, Jennifer, Ann — Black, Jennifer, Anne  
 Collins, Karen — Larter, Karen  
 Connolly, Marilyn, Alice — Spearman, Marilyn, Alice  
 Conway, Teresa, Lynn — Johnston, Teresa, Lynn  
 Cook, Margaret, Rose — Leach, Margaret, Rose  
 Cooke, Diane, Joyce — MacDonald, Diane, Joyce  
 Cooke, Mari, Clare, Vernon — Dressler, Mari, Clare, Vernon  
 Cooke, Sherry, Lee — Furguele, Sherry, Lee  
 Copley, Carol, Ann — Kardol, Carol, Ann  
 Cordero, Carlos, Alberto — LaFrance, Carlos, Alberto  
 Coudet, Monica, Patricia — Munoz, Monica, Patricia  
 Cover, Caroline, Anne — Erickson, Caroline, Anne  
 Coxhead, Judith, Verbena — Cox, Judith, Verbena  
 Coxhead, Robert — Cox, Robert  
 Craig, Janice, Lynn — Riley, Janice, Lynn  
 Cronkwright, Christina, Irene — Frigault, Christina, Irene  
 Crooks, Norma, Delores — Clemmings, Norma, Delores  
 Crouch, Melanie, Maria — Crouch-Ishmael, Melanie, Maria  
 Cudmore, Mary, Carolyn — Whitsitt, Mary, Carolyn  
 Culley, Carol, Lee — Day, Carol, Lee  
 Cunningham, Nancy, Marie — Loughheed, Nancy, Marie  
 Curley, Eleanor, Ruth — Duquette, Eleanor, Ruth  
 Currah, Heather, Jane — Reed, Heather, Jane  
 Currie, Colleen, May — McCrossan, Colleen, May  
 Curtis, Penny, Louise — Perry, Penny, Louise  
 Cuzdi, Imre — Csuzdi, Imre  
 Cuzdi, Katalin — Csuzdi, Katalin  
 Dacey, Deborah, Lee — Cole, Deborah, Lee  
 Dagg, Catherine, Lynn — Corner, Catherine, Lynn  
 Dalmacio, Victoria — Galang, Victoria  
 Daly, Susan, Eileen — Theriault, Susan, Eileen  
 Danis, Anne, Louise — Preddie, Anne, Louise  
 Daultrey, Ivy, Myrtle — Scott, Ivy, Myrtle  
 Davidson, Annette, Elaine — Zawadzki, Annette, Elaine  
 Davis, Barbara, Louesa — Washer, Barbara, Louesa  
 Davis, Shirley, Mary-Lynn — Jessup, Shirley, Mary-Lynn  
 De Vos, Judith, Lynne — Miller, Judith, Lynne  
 Dean, Lori-Kaye, Sharon — Ziegler, Lori-Kaye, Sharon  
 Dekker, Joyce, Corinne — Dobransky, Joyce, Corinne  
 Dekok, Kimberly, Michelle — Willfong, Kimberly, Michelle  
 Delina, Maria — Estella, Maria  
 Dembinski, Susan, Wanda — Harte, Susan, Wanda  
 Demers, Margaret, Louise — Leonard, Margaret, Louise  
 Demers, Marie, Louise, Therese — Smith, Marie, Louise, Therese  
 DeMille, Mary, May — Telford, Mary, May  
 Densmore, Nathan, Joseph — Magee, Nathan, Joseph  
 Deschamps, Peggy, Deborah, Marie — Marchand, Peggy, Deborah, Marie  
 Dewdney, Tara, Louise — Wyldies, Tara, Louise  
 Deyo, Wendolyn, Elaine — Nelles, Wendolyn, Elaine  
 Dhanji, Asifa — Dookran, Asifa  
 Di Nardo, Lina — Di Nardo Moss, Lina  
 Diakiw, Jeannine, Katherine — Campbell, Jeannine, Katherine  
 Diamantopoulos, Vasilike, Georgina — Warren, Vasilike, Georgina  
 Dietrich, Barbara, Elizabeth — Waterfall, Barbara, Feather  
 Disney, Deanna, Jean — Hood, Deanna, Jean  
 Divitcoff, Kathryn, Ann — Sanders, Kathryn, Ann  
 Dodds, Tamara, Lee — Dodds-Cantlon, Tamara, Lee  
 Dolliver, Cindy, Paula, Marlene — Bagshaw, Cindy, Paula, Marlene  
 Donaldson, Rhona, Mary — Lahey, Rhona, Mary  
 Dopson, Patricia — Lafontaine, Patricia  
 Downey, Kristine, Brenda — King, Kristine, Brenda  
 Doyle, Michelle, Frances — Doyle-Little, Michelle, Frances  
 Drinkwalter, Coleen, Paulette — Plate, Coleen, Paulette  
 Dube, Jennie, Lynn — Sayyeau, Jennie, Lynn  
 Duffey, Lisa, Carol — Willoughby, Lisa, Carol  
 Duffin, Geraldine, Mary — Duffin-Rice, Geraldine, Mary  
 Dukelow, Kelly, Elizabeth — Attrell, Kelly, Elizabeth  
 Dumas, Genery, Dirk — Muhammad, Kamaal, Haashim  
 Dumas, Philomina, Ann — Muhammad, Aqlimiyya  
 Duncan, Lauria-Ann, Georgina — Francisco, Lauria-Ann, Georgina  
 Dunn, Denise, Opal — Williams, Denise, Opal  
 Dupuis, Karen, Lynn — McDaniel, Karen, Lynn  
 Durley, Mary, Lynn, Joy — Cheskes, Mary, Lynn, Joy  
 Durst, Kathryn, Eva — Durst-Grossi, Kathryn, Eva  
 Dziuba, Maria, Christine — Greasley, Maria, Christine  
 Dzulynsky, Romana, Oksana — Dubczak, Romana, Oksana  
 Ebor, Luciano, Tolentino — Ebor, Sonny, Tolentino  
 Ebrahimzadeh, Wendy — Ebrahim, Wendy  
 Edwards, Kimberly, Dawn — Vandrunen, Kimberly, Dawn  
 Edwards, Sarah, Elizabeth — Hubbard, Sara, Elizabeth  
 Egli, Linda, Margrit — Pascoe, Linda, Margrit  
 Eldon, Catherine — Mulroney, Catherine  
 Eleftheriadis-Ellson, Diane, Nicole — Riddell, Diane, Nicole  
 Elgin, Monique — Bisguld, Monique  
 Elliott, Karen, Elizabeth — Lawson, Karen, Elizabeth  
 Ellis, Valerie, Elaine — Goldrup, Valerie, Elaine  
 Emrich, Lisa, Anne — Cooper, Lisa, Anne  
 Endicott, Steven, Paul — Roberts, Steven, Paul  
 Epstein, Anne, Miriam — Harari, Anne, Miriam  
 Eschbach, Caroline — Graziano, Caroline  
 Eskin, Joy, Reva — Eskin Moskovic, Joy, Reva  
 Esplin, Sandra, Mary, Jane — Esplin-Legge, Sandra, Mary, Jane  
 Estino, Julie, William — Estino, Youssefi, Julie, William  
 Etmanskie, Patricia, Ann — Amatruda, Patricia, Ann  
 Ettinoffe, Ophelia — Ettinoffe-Meikle, Ophelia  
 Evans, Judith, Kathryn — Thompson, Judith, Kathryn  
 Eyres, Jane, Susan — Chwedchuk, Jane, Susan  
 Fairbairn, Tobi, Janna — Kellestine, Tobi, Janna  
 Fargey, Brenda, Louise — Hall, Brenda, Louise  
 Farkas, Agnes, Ilona — Kiss, Agnes, Ilona  
 Farrant, Audrey — Zambon-Farrant, Audrey  
 Feagan, Lynda, Ann — Feagan Vincent, Lynda, Ann  
 Feare, Dorothy, Marveline — Bromfield-Feare, Dorothy, Marveline  
 Fernando, Pilar, Trinidad — Fernando Lim, Pilar, Trinidad  
 Fielder, Anne, Catherine — Willshire, Anne, Catherine  
 Figueroa, Veronica, Ivonne — L'Eveque, Veronica, Ivonne  
 Fisher, Michele, Anne — Sobczuk, Michele, Anne  
 Forster, Donna, Darlene — Orser, Donna, Darlene  
 Fortenbacher, Wanda — Hilty, Wanda  
 Foster, Kimberly, Ann — Cummings, Kimberly, Ann  
 Fouriezios, Nicole, Patricia, Robar — Smith, Nicole, Patricia, Robar  
 Fraser, Judy, Lynn — Auger, Judy, Lynn  
 Gallen, Debbie, Darleen, Mary — Devereaux, Debbie, Darleen, Mary  
 Garabetian, Ani — Tabrizi, Ani  
 Gard, Patricia, Danielle — Gard Crowell, Patricia, Danielle

Garner, Sandra, Lee — Blake, Sandra, Lee  
 Gaulin, Melanie, Marie — Dawson, Melanie, Marie  
 Gayle, Hazel, Leonie — Goring, Hazel, Leonie  
 Gaynor, Brenda, Lee — Feeney, Brenda, Lee  
 Gelinas, Diane, Lynn — Gaudette, Diane, Lynn  
 Gernhaelder, Karen, Dianne — Zavitz, Karen, Dianne  
 Ghaney, Shane, Benjamin — Langille, Shane, Benjamin  
 Giao, Marcos, Alberto — Giao, Marcos, Braz  
 Giefert, Cheryl, Jean — McEachern, Cheryl, Jean  
 Gikopoulos, Georgina — Deligianis, Georgina  
 Giles, Jennifer, Alison — Shephard, Jennifer, Alison  
 Gillette, Michelle, Lisa — Cadeau, Michelle, Lisa  
 Gilmour, Sandra, Lynn — Schelling, Sandra, Lynn  
 Godson, Cindy, Ruth — Brydges, Cindy, Ruth  
 Gonder, Teresa, Lorraine — Neu, Teresa, Lorraine  
 Graefner, Janine, Lee — Le Fort, Janine, Lee  
 Graham, James, Daniel, John — Beattie, James, Daniel, John  
 Graham, Tammy, Annette — Carter, Tammy, Annette  
 Graham, William, Hugh — Beattie, William, Hugh  
 Green, Deborah, Linda — Malcolm, Deborah, Linda  
 Grossman, Susan, Beverley — Laszlo, Susan, Beverley  
 Grove, Cindy, Dee, Ann — Bennett, Cindy, Dee, Ann  
 Grubisic, Radmila — Hadzinikolaou, Radmila  
 Gruer, Linda, Marlene — Laird, Linda, Marlene  
 Guilbeault, Fay, Ann — Guilbeault-Pitt, Fay, Ann  
 Guthrie, Dita-Marie — Florence, Dita-Marie  
 Guthro, Joanne, Louise — Roth, Joanne, Louise  
 Guyer, Jennifer, Leanne — Houston, Jennifer, Leanne  
 Halifax, Rhonda, Lynn — Andersen, Rhonda, Lynn  
 Hall, Patricia, Ann — Hall, Teisha  
 Hamilton, Karen, Elizabeth — De Blois, Karen, Elizabeth  
 Hamilton, Teresa, Louise — Kerr, Teresa, Louise  
 Haney, Karyn, Linda — Slusarchuk, Karyn, Linda  
 Hanna, Angela, Jill — Lemieux, Angela, Jill  
 Hard, Sheila, Charlene — Schaffrath, Sheila, Charlene  
 Hardie, Jill, Anne — Sheppard, Jill, Anne  
 Hargrove, Michele, Eileen — Lewis, Michele, Eileen  
 Harman, Michelle, Nicole — Knoll, Michelle, Nicole  
 Harracksingh, Vashtee, Ayne — Pariag, Vashtee, Ayne  
 Hatch, Shellie — Jakarsezian, Shellie  
 Hatcher, Laurie, Anne — Millar, Laurie, Anne  
 Hatton, Dawn, Louise — Lloyd, Dawn, Louise  
 Hawkins, Cathy, Anne — Harwood-Pope, Cathy, Anne  
 Healey, Mary, Louise — Stevenson, Mary, Louise  
 Heard, Susan, Elizabeth — Anderson, Susan, Elizabeth  
 Henry, Dana-Marie — Le Page, Dana-Marie  
 Henry, Sheila, Evelyne — Henkel, Sheila, Evelyne  
 Herrera, Ma, Luisa, V. — Cuenca, Ma, Luisa, V.  
 Hertendy, Krista, May — Willis, Krista, May  
 Hewson, Elizabeth, Anne — Schultz, Elizabeth, Anne  
 Hiebert, Lisa, Laura — Grisdale, Lisa, Laura  
 Hill, Heather, Kathleen — Groomes, Heather, Kathleen  
 Hitchcock, Jenny, Eileen — Rushforth, Jenny, Eileen  
 Ho, Betty — Ho Lum, Betty  
 Hofstra, Margaret, Rose — Lecours, Margaret Rose  
 Hoggard, Kimberley, Ann — Vlieg, Kimberley, Ann  
 Holgate, Barbara, Anne — Kahler, Barbara, Anne  
 Holloway, Wendy, Drusille — Holloway-Benson, Wendy, Drusille  
 Holmgren, Ann, Marie — Salerno, Ann, Marie  
 Horvath, Eva — Ballem, Eva  
 Hossain, Alexandra, Ivanovna — Chernysh, Alexandra  
 Houston, Jennifer, O'Brien — Coffey, Jennifer, O'Brien  
 Howard, Lisa, Michele — Macedo, Lisa, Michele  
 Hubert, Marlyn, Stella — Cadeau, Marlyn, Stella  
 Huctwith, Carla, Lee — Gauthier, Carla, Lee  
 Huebel, Annette — Terry, Annette  
 Hugo, Monica, Martina — Tiessen, Monica, Martina  
 Hui, Cinda, Sin, Cheung — Hui-Yuen, Cinda, Sin, Cheung  
 Hull, Tracey, Alexandra — Hull-Gosse, Tracey, Alexandra  
 Hummel, Sandra, Lee — Chytil, Sandra, Lee  
 Humphrey, Edmond, James — Ivall, Edmond, James  
 Hunt, Patricia, Ann — Wall, Patricia, Ann  
 Hunter, Catherine, Elizabeth — Kelly, Catherine, Elizabeth  
 Huot, Cheryl, Ann — Unsworth, Cheryl, Ann  
 Inglis, Diana, Jean — Mahaffy, Diana, Jean  
 Irwin, Jennifer, Ann — Coleman-Lawrie, Jennifer, Ann

Irwin, Michael, Craig — Muir, Michael, Craig  
 Ivanov, Mirolyub, Angelov — Angelov, Miro  
 Jackson, Kayla, Ruth — Fox, Kayla, Ruth  
 Jacobs, Suzanne, Carol — Gagliese, Suzanne, Carol  
 Jainarine, Lomewattie — Secharan, Shirmila  
 Jainarine, Ravi, Chandra, Datt — Secharan, Ravi, Chandra, Datt  
 Jarvis, Julia, Stephanie, Rhoda — Isaacs, Julia, Stephanie, Rhoda  
 Jeffries, Beverley, Anne — Emmott, Beverley, Anne  
 Jennings, Julie, Ann — Scott, Julie, Ann  
 Jenschewski, Kelly, Dawn — Williams, Kelly, Dawn  
 Jerry, Heather, Jeanne — Linka, Heather, Jeanne  
 Jingco, Vivian, Ricafort — Keen, Vivian, Ricafort  
 Johnsen, Karen, Jane, Marie — Leblanc, Karen, Jane, Marie  
 Johnson, Amanda, Elizabeth — Van Houcke, Amanda, Elizabeth  
 Johnson, Shirley, Jean — Ostashower, Shirley, Jean  
 Johnston, Barbara, Dorothy — Johnston-Iafelice, Barbara, Dorothy  
 Johnston, Linda, Frances — Dalgard, Linda, Frances  
 Jokinen, Lynn, Darlene — Tymchuk, Lynn, Darlene  
 Jollimore, Cynthia, Anne — Barratt, Cynthia, Anne  
 Jones, Cecily, Dean — Reefer, Cecily, Dean  
 Jones, Darlene — Sawada, Darlene  
 Jones, Tina, Marie — Wengel, Tina, Marie  
 Joseph, Berna, Felicia — Gregory, Berna, Felicia  
 Joseph, Marie, Jessie — Barkey, Marie, Jessie  
 Joynson, Julie, Lynn — Lewis, Julie, Lynn  
 Kalapodakis, Kaliopi — Catizzone, Kaliopi  
 Kalil, Vivian — Kalil-Watterud, Vivian  
 Kalimootoo, Paliandy — Mootoo, Rick, Paliandy, Kali  
 Kamp, Karla, June — Luymes, Karla, June  
 Kandhai, Komalwati — Indarjit, Komalwati  
 Kanthavanam, Nirmaladevi — Rasiyah, Nirmaladevi  
 Karwalajtys, Liz — Scott, Liz  
 Kaur, Kalbinder — Rai, Kalbinder  
 Keegan, Derek, William — Howard, Derek, William  
 Kelly, Kathleen, Roseann — Tarasoff, Kathleen, Roseann  
 Kelly, Shannon, Margaret — Cameron, Shannon, Margaret  
 Kempe, Theresa, Lynne — Rose, Theresa, Lynne  
 Kenyon, Lisa, Anne — Wallabank, Lisa, Anne  
 Kerr, Jacqueline, William — Kerr-Reestman, Jacqueline, William  
 Keshishian, Jeran — Martin, Jayran  
 Khan, Anella — Sukhram, Anella  
 Khan, Bhagmat — Mohabir, Bhagmat  
 Kiil, Tzainik — Martin, Zainek  
 Kilbride, Denise, Lynn — Brand, Denise, Lynn  
 Kim, Jin-Ok — Im, Jin-Ok  
 King, Judy — Brown, Judy  
 Kitzman, Susan, Elizabeth — Charbonneau, Susan, Elizabeth  
 Kmiecik, Dorota, Malgorzata — Bernacki, Dorota, Malgorzata  
 Koletar, Margaret, Maria — Wigginton, Margaret, Maria  
 Konczak, Sandra, Wendy — Vainio, Sandra, Wendy  
 Kowalsky, Paula, Marie — Mitton, Paula, Marie  
 Kuehn, Lillian, Anita — Kuehn Walker, Lillian, Anita  
 Kuhn, Stanislaw — Kuhn, Stanley, Robert  
 Kuhn, Zofia — Kuhn, Sophie  
 Kular, Zofia — Karniej, Zofie  
 Kumari, Sunita — Kanda, Sunita  
 Kung, Cali — Kim, Cali  
 Kung, Helen — Kung-Hopgood, Helen  
 Kurman, Christina, Lynn — Hennessy, Christina, Lynn  
 Kurylłowicz, Justyna, Joanna — Laurie-Lean, Justyna, Joanna  
 Kutshaw, Kelly, Lyn — Kutshaw-Polak, Kelly, Lyn  
 Lacelle, Sylvie, Marie, Jacqueline — Bedard, Sylvie, Marie, Jacqueline  
 Lakhram, Bhaminee — Sharma, Bhaminee  
 Lang, Wendy, Jane — Dalby, Wendy, Jane  
 Langley, Holly, Alison — Tutin, Holly, Alison  
 Larkin, Lesley, Ann — Brooke, Lesley, Ann  
 Larson, Carol, Marie — Larson Caldwell, Carol, Marie  
 Last, Laura, Louise — George, Laura, Louise  
 Latorre, Karen, Frances — Wesselman, Karen, Frances  
 Latourell, Catherine, Joy — Knapp-Fisher, Catherine, Joy  
 Laurie, Hellen, Anne — Cumber, Hellen, Anne  
 Lawson, Keri-Lynn — Turner, Keri-Lynn  
 Le Clerc, Sharon, Eileen — Venturin, Sharon, Eileen  
 Leach, Lisa, Marie — Osborn, Lisa, Marie  
 Lee, Jean — Rodger, Jean  
 Lee, Sandra — Lee-Toso, Sandra

- Leeson, Sherry, Lou-Ann — Trecarten, Sherry, Lou-Ann  
 Legge, Christina, Jean — Moore, Christina, Jean  
 Leibe, Catherine, Louise — Buffone, Catherine, Louise  
 Leighton, Virginia, Louise — Armour, Virginia, Louise  
 Lenneuy, Mary, Roxanne, Jelilee — Bourdeau, Mary, Roxanne, Jenilee  
 Leuenberger, Leslie, Ernest — Luanberg, Leslie, Ernest  
 Leung, Amy, Chung, May — Tseng, Amy, Chung, May  
 Lewis, Lisa, Dawn — Lewis-Hargrave, Lisa, Dawn  
 Lewis, Susan, Leslie — Farmer, Susan, Leslie  
 Li, Can-Lan — Kao, Leslie  
 Lichtenstein, Helen — Zosky, Helen  
 Lichty, Lynn, Louise — Culley, Lynn, Louise  
 Lim, Danial — Song, Keun-Ho  
 Lis, Dorota — Paul, Dorota  
 Liscio, Antonietta — Lamanna, Antonietta  
 Livingstone, Katherine, Pearl — Desmarais, Katherine, Pearl  
 Livingstone, Maria, Pauline — Boyle, Maria, Pauline  
 Lochan, Phulandai — Maharay, Peggyann, Samara  
 Lomonosof, Elaine — Laine, Shia  
 Loney, Nancy — Tezzi, Nancy  
 Loos, Joann, Marie — Kat, Joann, Marie  
 Lord, Marie, Diane, Francyne — Kodama, Marie, Diane, Francyne  
 Lozej, Ramana, Ray — Upton, Ramana, Ray  
 Lu, Lingling — Jiao, Lingling  
 Lubicz-Szydowska, Margaret, Anna, Alicja — Zabel, Margaret, Anna, Alicja  
 Luciano, Gina, Maria — Luciano-Coyne, Gina, Maria  
 Ludwig, Marcy, Katherine — Weber, Marcy, Katherine  
 Lumley, Dawn, Marie — Lumley-Myllari, Dawn, Marie  
 Lynn, Deborah, Ann — Blaney, Deborah, Ann  
 MacDonald, Dustin, Robert — Hennessey, Dustin, Jared  
 MacDougall, Frana, Leanne — Brown, Frana, Leanne  
 MacLeod, Denise, Marlene — Williams, Denise, Marlene  
 MacNeil, Lilian, Colleen — Overend, Lilian, Colleen  
 MacCharles, Jill, Irene — MacCharles Crain, Jill, Irene  
 MacDonald, Catherine, Mary — Huisman, Catherine, Mary  
 Machete, Sandra, Lynn — Edmonds, Sandra, Lynn  
 MacKay, Wendy-Gay, Pauline — MacDougall, Wendy-Gay, Pauline  
 Maggiacomo, Amy, Leigh, Eila — McKenzie, Amy, Leigh, Eila  
 Magner, Sheilagh, Maryanna — Magner, Sigle, Maryanna  
 Magotte, Cal, Bert — Necan, Calvin, Bert  
 Maguire, Linda, Phyllis — Adams, Linda, Phyllis  
 Maley, Maureen, Anne — Maley-Lyon, Maureen, Anne  
 Malley, Lisa, Jo-Ann — Whalen, Lisa, Jo-Ann  
 Maloney, Mary, Ellen — Maksymchuk, Mary, Ellen  
 Mancini, Nancy — Faria, Nancy  
 Mandatori, Giuseppina — Aloia, Giuseppina  
 Maneli, Rosanna — Toniolo, Rosanna  
 Mantrop, Mary, Joan — Connolly, Mary, Joan  
 Marchesano, Rosa, Maria — Spencer, Rosa, Maria  
 Marchment, Michael, Wayne — Callender, Michael, Wayne  
 Marley, Jennifer, Anne — Smith, Jennifer, Anne  
 Marshall, Carolyn, Louisa — Derbyshire, Carolyn, Louisa  
 Marshall, Kimberley, Joan — Romagnuolo, Kimberley, Joan  
 Marshall, Stacey, Anne — Noah, Stacey, Anne  
 Martin, Kelly, Ann — Richardson, Kelly, Ann  
 Martin, Marjorie, Louise — Bandy, Marjorie, Louise  
 Mason, Rose-Marie, Louise, Yvonne — Urbani, Rose-Marie, Louise, Yvonne  
 Mason, Shantelle, Lynn — Moses, Shantelle, Lynn  
 Mathieu, Jennifer, Joanne — Renauld, Jennifer, Joanne  
 McArthur, Emelia, Angelina — McArthur, Amelia, Anne, Cristina  
 McDonald, Sherry, Leah — Forget, Sherry, Leah  
 McLean, Monica, Deorsie — Russell, Monica, Deorsie  
 McMartin, Lida — Holt, Lida  
 McMaster, Pamela, Lynn — Winthrop, Pamela, Lynn  
 McSorley, Kelly, Ann — Morris, Kelly, Ann  
 McBride, Elizabeth, Jane — Warner, Elizabeth, Jane  
 McConnell, Joyce, Marjorie — Grandy, Joyce, Marjorie  
 McCulligh, Barbara, Ann — Lanther, Barbara, Ann  
 McCulligh, Sandra, Gladys — Hauser, Sandra, Gladys  
 McDonald, Susanne, Annmarie — Brownlie, Susanne, Annmarie  
 McFaul, Lauraine, Elizabeth — Fleischmann, Lauraine, Elizabeth  
 McGarrity, Dianne, Marie — Rallison, Dianne, Marie  
 McGee, Susan, Carol — Cotter, Susan, Carol  
 McGill, Heather, Diane — Vander Eyken, Heather, Diane  
 McGrath, Karen, Katherine — McLean, Karen, Katherine  
 McGregor, Tina, Leeanne — Duhaime, Tina, Leeanne  
 McGuigan, Karen, Marie — Chapman, Karen, Marie  
 McKeil, Nina — Kyle, Nina  
 McKim, Mary, Lou — Crowley, Mary, Lou  
 McKinney, Nadine, Anne — McKinney Gilchrist, Nadine, Anne  
 McLellan, Maureen, Gail — Patrick, Maureen, Gail  
 McLeod, Anne, Marie — Yerex, Anne, Marie  
 McMillan, Sandra, Rosemary — Gualtieri, Sandra, Rosemary  
 McPhie, Leanne, Gayle — McPhie Auge, Leanne, Gayle  
 Mearns, Jane, Louise — Ball, Jane, Louise  
 Mederak, Lisa, Jane — Meggs, Lisa, Jane  
 Melnyk, Sandy, Kay — Marshall, Sandy, Kay  
 Mels, Michele — Morrison, Michele  
 Mendes, Isaura, Da Conceicao — Vieira, Isaura, Da Conceicao  
 Menzie-Taylor, Karen, Helen — Turgeon, Karen, Helen  
 Mephram, Nancy, Kristine — Wong, Nancy, Kristine  
 Micallef, Simone, Leonora — Simpson, Simone, Leonora  
 Michaud, Denise, Anne, Marie — Michaud-Freeman, Denise, Anne, Marie  
 Middelkamp, Melissa, Rose — Monsma, Melissa, Rose  
 Miller, Robyn, Lynne — Cadwell, Robyn, Lynne  
 Miller, Sheri, Anne — Fox, Sheri, Anne  
 Milne, Lindsay, Dawn — French, Lindsay, Dawn  
 Mirza, Sabrina, Zahra — McTaggart, Sabrina, Zahra  
 Mohamed, Hassen, Oukash — Demeke, Mesfen  
 Monk, Leigh, Alice — Peterson, Leigh, Alice  
 Monk, Sandra, Jean — Williamson, Sandra, Jean  
 Moorcroft, Janet, Elaine — Bush, Janet, Elaine  
 Moore, Jennifer, Lynn — Delaney, Jennifer, Lynn  
 Morby, Margaret, Alison — Evans, Margaret, Alison  
 Morgan, Ceri — Prowse, Ceri  
 Morganelli, Marilyn — Toole, Marilyn  
 Morra, Rocchina — Marrelli, Rocchina  
 Morrison, Cindi, Lynn — Dame, Cindi, Lynn  
 Morrison, Pamela, Michele — Teskey, Pamela, Michele  
 Morrison, Sharon, Lee — Pearson, Sharon, Lee  
 Morritt, Donna, Elizabeth — Woodcox, Donna, Elizabeth  
 Moskalewicz, Piotr, Cezary — Moss, Peter  
 Mouck, Jean, Catherine — Ashton, Jean, Catherine  
 Moulton, Kathy, Anne — Michael, Kathy, Anne  
 Munn, Lisa, Leann — Nagle, Lisa, Leann  
 Murray, Deborah, Anne — Walke, Deborah, Anne  
 Mykicz, Kimberley, Anne — Tremblay, Kimberley, Anne  
 Nahwegahbow, Laurie, Ann, Mary — Stewart, Laurie, Ann, Mary  
 Nash, Karen — Armstrong-Nash, Karen  
 Nast, Angela, Melissa — Deane, Angela, Melissa  
 Natale, Lisa, Maria — Natale-Williams, Lisa, Maria  
 Nedd, Chandar, Tilianji — Muhammad, Hamiyd, Massa  
 Neil, Stephanie, Mary — Yalcin, Stephanie, Mary  
 Newman, Anthony, Roderick — Frank, Campbell  
 Ng, Chui, Nin — Ko, Chui, Nin  
 Nguyen, Mong, Huyen — Vu, Mong, Huyen  
 Nicholls, Andrea, Louise — Mack, Andrea, Louise  
 Nicholls, Shayne, William — Allen, Shayne, William  
 Nicolini, Maria — Lancia, Maria  
 Nielsen, Mary, Ann — Mercer, Mary, Ann  
 Nolan, Dorothy, Gertrude — Dougherty, Dorothy, Gertrude  
 O'Brien, Nancy-Jo — Gannon, Nancy-Jo  
 O'Connor, Isabel, Madeleine — O'Connor, Isabelle, Madeleine  
 O'Gorman, Carol, Ann — Butler, Carol, Ann  
 O'Grady, Pamela-Jo — Galante, Pamela-Jo  
 O'Leary, Mary, Patricia — Pappin, Mary, Patricia  
 O'Meara, Maureen — O'Meara Heino, Maureen  
 Oates, Sylvia, Lynne — Oates-Pennell, Sylvia, Lynne  
 Obonsawin, Andre — O'Bumsawin, Andre, Clement  
 Oey, Carolin, Nuala, Hong, Tjioe — Smith, Carolin, Nuala, Hong, Tjioe  
 Olden, Terri — Armstrong, Terri  
 Oliveira, Egenia, Lopes — Oliveira Thompson, Egenia, Lopes  
 Ollhoff, Angela — Roessler, Angela  
 Omar, Jeanne — Kho, Jeanne  
 Oraczewski, Tad — Oraczewski, Ted  
 Oribiana, Eva, Rubiales — Huff, Eva, Rubiales  
 Ouellette, Desi, Joseph, Donald — Cozier, Desi, Joseph, Donald  
 Ouellette, Patrick, Richard — Ouellette, Richard, Patrick

- Ouimet, Lucie — Titley, Lucie  
 Overs, Kaaren, Kathryn — Dickson, Kaaren, Kathryn  
 Pagels, Kareen, Andrea — Rupolo, Kareen, Andrea  
 Paglia, Anna, Rose — Biafore, Anna, Rose  
 Palazzolo, Lina — Vecchio, Lina  
 Palladino, Angela — Torchia, Angela  
 Palmer, April, Joyce — Stehlin, April, Joyce  
 Panetta, Ginetta — Furlano, Ginetta  
 Pankos, Deborah, Ruth — De Vries, Deborah, Ruth  
 Paradis, Sharon, Ann, Carol — Chaudhry, Sharon, Ann, Carol  
 Paras, Vitra — Dunn, Vitra  
 Paris, Christina — Gilmour, Christina  
 Parish, Trevor, Wayne — Murray, Trevor, Wayne  
 Parnamagi, Tiina, Marie — Mason, Tiina, Marie  
 Parrish, Peggy, Alice — Hancock, Peggy, Alice  
 Parsons, Anne, Mary — Uhlmann, Anne, Mary  
 Paterson, June — Campbell, June  
 Payne, Clare, Bernice — King, Clare, Bernice  
 Payne, Elizabeth, Anne — Bean, Elizabeth, Anne  
 Pearl, Maureen, Elena — Goldlist, Maureen, Elena  
 Peck, Geraldine, Ellen — Crobar, Geraldine, Ellen  
 Pegg, Phebe, Ethel — Palmer, Phebe, Ethel  
 Pelow, Janet, Diane, Elizabeth — Dunn, Janet, Diane, Elizabeth  
 Persons, Jill, Robin — Atherton, Jill, Robin  
 Pesce, Filomena — Vitoritti, Filomena  
 Peshal, April, Ann — Ferriman, April, Ann  
 Pethick, Norah, Lisa — Maleszyk, Norah, Lisa  
 Petkovic, Gillian, Elizabeth — Wilson-Mann, Gillian, Elizabeth  
 Petkovic, Ivan, Radoslav — Wilson-Mann, Ivan, Charles  
 Petti, Antonietta, Assunta — Larsen, Antonietta, Assunta  
 Peycha, Cynthia, Elizabeth — House, Cynthia, Elizabeth  
 Phillips, Kerri, Ellen — Lewis, Kerri, Ellen  
 Pietarinen, Pauli, Walter — Marsch, Paul, Walter  
 Pim, Darcie, Gail — Simpson, Darcie, Gail  
 Playfair, Sandra, Louise — Walker, Sandra, Louise  
 Plume, Paula, Ann — Fraser, Paula, Ann  
 Poirier, Carol, Elizabeth — Mainville, Carol, Elizabeth  
 Pokotinsky, Dan — Perelman, Vadim  
 Pople, Krista, Lynn — Pople-Fillion, Krista, Lynn  
 Porteous, Nancy, Carol — Horning, Nancy, Carol  
 Pownall, Charles, Vernon — Pownall-Ryan, Charles, Vernon  
 Prasad, Sangita — Barr, Sangita  
 Prencipe, Libera, Maria — Prencipe, Maria, Libera, Caterina  
 Prevost, Marie, Estelle, Louise — Prevost-Bicego, Marie, Estelle, Louise  
 Probert, Donna, Rae — Kalyn, Donna, Rae  
 Proulx, Rose, Marie — Coudriau, Rose, Marie  
 Puskas Sarah, Jane — May, Sarah, Jane  
 Querques, Carmina — Spehar, Carmina  
 Raddatz, Karen, Lynn — Gauthier, Karen, Lynn  
 Rae, Susan, Theresa — Barons, Susan, Theresa  
 Rahn, Glenda, Ann — Shafer, Glenda, Ann  
 Rallo, Christine, Cecilia — Rallo-La Sala, Christine, Cecilia  
 Ranger, Maria, Andrea — Dawkins, Maria, Andrea  
 Raymond, Susan, Mary, Emily — Schnessl, Susan, Mary, Emily  
 Read, Heather, Ellen — Clarke, Heather, Ellen  
 Redman, Julie, Powell — Redman-Wray, Julie, Powell  
 Reid, Carol, Ann — Flinn, Carol, Ann  
 Renaud, Lisa, Marie — Funstin, Lisa, Marie  
 Reuter, Annette, Barbara — Holroyd, Annette, Barbara  
 Rheault, Marie, Angeline, Guylaine — Lavoie, Marie, Angeline, Guylaine  
 Richardson, Colleen, Ellen — Spero, Colleen, Ellen  
 Richmire, Lyal — Richmire, Lyle  
 Rickerby, Darlene, Ann — Wood, Darlene, Ann  
 Rico, Jocelyn, Concepcion — Faigal, Jocelyn, Concepcion  
 Rigano, Elena, Franca — McCarthy, Elena, Franca  
 Rightmyer, Kimberly, Robin — David, Kimberly, Robin  
 Rivers, Tara — Gallagher, Tara  
 Rizzetto, Darlene, Marie — Jeffrey, Darlene, Marie  
 Roberts, Edmund, Angus — MacLean, Edmund, Angus  
 Roberts, Kimberley, Ann, Mary — Bowie, Kimberley, Ann, Mary  
 Roberts, Tracy, Elizabeth — Larocque, Tracy, Elizabeth  
 Robson, Susann, Virginia — Colquhoun, Susann, Virginia  
 Rochon, Gloria, Jean, Rita — Burns, Gloria, Jean, Rita  
 Rodgers, Monica, Teresa — Mahar, Monica, Teresa  
 Rodney, Marcia, May — Haywood, Marcia, May  
 Rogers, Catherine, Lynda — Robbins, Catherine, Lynda  
 Rogers, Jill, Louise — Rogers-Langille, Jill, Louise  
 Rogers, Kimberley, Ann — Perkins, Kimberley, Ann  
 Roine, Julie, Anne — Proteau, Julie, Anne  
 Rowe, Geraldine, Elizabeth — Wright, Geraldine, Elizabeth  
 Roy, Michelle, Katherine — McHugh, Michelle, Katherine  
 Runstedler, Karen, Anne — Devereux, Karen, Anne  
 Salisbury, Judith, Ann — Pohlmann, Judith, Ann  
 Sammy, Lona, Kumari — Lynch, Lona, Kumari  
 Sanders, Catherine, McNair — Fillmore, Catherine, McNair  
 Sanderson, Jennifer, Lynne — Smith, Jennifer, Lynne  
 Saxton, Patricia, Catharine, Cecelia — May, Patricia, Catharine, Cecelia  
 Scamurra, Maria, Rita — Ricciardi, Maria, Rita  
 Schaefer, Katherine, Elizabeth — Thomas, Katherine, Elizabeth  
 Schindlegger, Ingrid, Sandra — Hansen, Ingrid, Sandra  
 Schmidt, Patricia, Lynn — Kramer, Patricia, Lynn  
 Schreck, Karla, Luise — Pinkerton, Karla, Luise  
 Schroeder, Penelope, Anne — Morgan, Penelope, Anne  
 Scully, Linda, Janine — McTaggart, Linda, Janine  
 Sebastian, Tania — Filipovich, Tania  
 Seeger, Marie, Louise — Ferland, Marie, Louise  
 Segiet, Helena — Czulinski, Helena  
 Seitz, Deborah, Jane — Wright, Deborah, Jane  
 Sekulich, Nina, Rose — Carpenter, Nina, Rose  
 Shanahan, Carolyn, Ann — Lemay, Carolyn, Ann  
 Shum, Suk, Ling — Tugwood, Suk, Ling  
 Sibbitt, Bradley, John, Edward — Walsh, Bradley, Edward  
 Sicova, Adriana — Little, Adriana  
 Simpson, Linda, Joan — Sorel, Linda, Joan  
 Simpson, Madele, Diane — Simpson, Madele, Diane  
 Sinclair, Ann, Barbara — Masters, Barbara, Ann  
 Singer, Amy, Debra — Rodrigues Singer, Amy, Debra  
 Singh, Bhanomattie — Sookdeo, Bhanomattie  
 Singh, Ishwar, Pal — Jagpal, Ishwar, Pal, Singh  
 Singh, Manoranjan — Panatch, Manoranjan, Singh  
 Singh, Nathalie, Michelle — Nabbijohn, Nathalie, Michelle  
 Singh, Parmjit — Gill, Premjit  
 Singh, Raspal, Kaur — Gill, Raspal, Kaur  
 Singh, Saminderjit — Gill, Saminderjit  
 Singh, Sandra, Maria — Gopie, Sandra, Maria  
 Singh, Saranpreet — Gill, Saranpreet  
 Singh, Simer, Preet — Gill, Simer, Preet  
 Sirois, Marie, Denise — Gauthier, Marie, Denise  
 Sloan, Cynthia, Isabel, Todd — Jackson, Cynthia, Isabel, Todd  
 Smith, Dorothy, Rose, Marie — Peddie, Dorothy, Rose, Marie  
 Smith, Elaine, Denise — Bowen, Elaine, Denise  
 Smith, Joanne — Lepine, Joanne  
 Smith, Stephen, Michael — Kelly, Stephen, Michael  
 Smith, Theresa, Loraine — Kearns, Theresa, Loraine  
 Smotek, Gabrielle, Paula — McLean, Gabrielle, Paula  
 Sodaro, Linda, Maria — Donato, Linda, Maria  
 Soukup, Helena — Collins, Helena  
 Sparks, Tammy, Christina — Kawzenuk, Tammy, Christina  
 Spillane, Tracy, Lynn — Turri, Tracy, Lynn  
 Squire, Muriel, Sarah — Allan, Muriel, Sarah  
 St Pierre, Catherine, Ann — Walters, Catherine, Ann  
 Stacey, Joann, Margaret — Anghelescu, Joann, Margaret  
 Stanford, Tuesday, Mavis — Stanford, Joyce, Mavis  
 Stantial, Susan, Yvonne — Cook, Susan, Yvonne  
 Steele, Tina, Anne, Marie — Paddock, Tina, Anne, Marie  
 Stewart, Christina, Ann — Marrs, Christina, Ann  
 Stewart, Joanne, Fern — DeSousa, Joanne, Fern  
 Stickles, Tara, Leigh — Yourth, Tara, Leigh  
 Stinson, Sheril, Blanche — Stinson-Pendlebury, Sheril, Blanche  
 Stokes, Rebecca, Rosina — Craymer, Rebecca, Rosina  
 Stoneham, Margaret, Dorothy — Hill, Margaret, Dorothy  
 Story, Diane, Denise — O'Brien, Diane, Denise  
 Strain, Carrie, Roberta — Smith, Carrie, Roberta  
 Street, Frances, Margaret — Charlebois, Frances, Margaret  
 Streicher, Lorie, Lee; Ann — Schmidt, Lorie, Lee  
 Stunden, Donald, Jeffrey — Nolan, Donald, Jeffrey  
 Sumka, Linda, Colleen — Wood, Linda, Colleen  
 Swain, Ariel, Aveleigh — Filson, Ariel, Aveleigh  
 Sweet, Melissa-Ann, Charmaine — Reid, Melissa-Ann, Charmaine

Syrett, Brenda, Lee — Harvie, Brenda, Lee  
 Szabo, Monica, Wilma, Margaret — Seyler, Monica, Wilma, Margaret  
 Szczuryk, Olha, Zena — Lishchyna, Olha, Zena  
 Tahal, Karen, Ramona, Vidya — Hepworth, Karen, Ramona, Vidya  
 Tambie, Sally — Benjamin, Sally  
 Tantakis, Christine — Tolios, Christine  
 Tapley, Carrie, Lynn — Phillips, Carrie, Lynn  
 Tatarova, Simona — Sebastian, Simona  
 Tatchell, Gina — Tatchell, Megan, Victoria  
 Teichroeb, Margartha — Giesbrecht, Margartha  
 Ternowski, Karen, Ann — Noss, Karen, Ann  
 Thibeault, Denise, Anne — Thibeault-Gregus, Denise, Anne  
 Thistle, Donna, Marie — Caverly, Donna, Marie  
 Thomas, Joyce — Baker, Joyce  
 Thomas, Karen, Lynn — Glover, Karen, Lynn  
 Thomas, Susan, Jane — Adams, Susan, Jane  
 Thompson, Kathleen, Jane — Mason, Kathleen, Jane  
 Thompson, Susanne, Frances — Hegazy, Susanne, Frances  
 Tirone, Rosa — Horner, Rosa  
 To, Eileen, Man, Wah — Wu, Eileen, Man, Wah  
 Tocher, Nancy, Anne — Tocher-Robinson, Nancy, Anne  
 Torneck, Robin, Suzanne — Pillon, Robin, Suzanne  
 Torrance, Beverly, Ann — Roorda, Beverly, Ann  
 Treder, Roman, Mathew — Trader, Raymond, Mathew  
 Tremblay, Debora, Louise — Chong, Debora, Louise  
 Tsatalbasidis, Antigone — Pastrana, Antigone  
 Tung, Yuet, Hing — Chan, Yuet, Hing  
 Tyrrell, Brenda, Joyce — Mannion, Brenda, Joyce  
 Valvasori, Vittoria — Papeo, Vittoria  
 Van Ewyk, Marion, Marlene — Menard, Marion, Marlene  
 Van Neste, Margaret — Machan, Margaret  
 Vanderburgh, Catherine, Elizabeth — Vanderburgh Kerr, Catherine, Elizabeth  
 Vankooten, Terrina, Antonia — Rowlands, Terrina, Antonia  
 Vanleeuwen, Emma, Lorraine — Horsburgh, Emma, Lorraine  
 Vedana, Angela, Christina — Grande, Angela, Christina  
 Verner, Catherine, Elizabeth — Reimer, Catherine, Elizabeth  
 Villeneuve, Bernice, Victoria — Kovc, Bernice, Victoria  
 Violette, Simone, Louise — Castaneda, Simone, Louise  
 Virgo, Nancy, Anne — Grubb, Nancy, Anne  
 Vreugdenhil, Julie, Lynn — Wiarda, Julie, Lynn  
 Walker, Donna, Mary — McGill, Donna, Mary  
 Walls, Elaine, Cecile — Willett, Elaine, Cecile  
 Walsh, Heather, Leah — Cardinale, Heather, Leah  
 Wandel, Slawomir, Ryszard — Wandel, Lewis, Richard  
 Warren, Marie, Gloria, Florence, Bertha, Henriette — Duggan, Marie, Gloria, Florence, Bertha, Henriette  
 Warry, Kimberly, Jane — Nielsen, Kimberley, Jane  
 Watkins, Kelly, Lee — Gard, Kelly, Lee  
 Watson, Lauren, Ann — McLean, Lauren, Ann  
 Watson, Maxine, Heather — Pinter, Maxine, Heather  
 Watts, Ingrid, Johanna — Knisely, Ingrid, Johanna  
 Weir, Valerie, Jane — Cuthbert, Valerie, Jane  
 Welcel, Candy, Elizabeth — Glover, Candy, Elizabeth  
 Wells, Christie, Ann — McClure, Christie, Ann  
 Wells, Cindy, Lee — Houston, Cindy, Lee  
 Welsh, Beverly, Ann — Major, Beverly, Ann  
 Weppler, Kathy, Christine — Hilborn, Kathy, Christine  
 White, Caroline, Jean — Deiter, Caroline, Jean  
 White, Mary, Francine — Verch, Mary, Francine  
 Whiteman, Ruth, Elizabeth — Bastian, Ruth, Elizabeth  
 Whitford, Marie, Kathleen, Carole — Kay, Marie, Kathleen, Carole  
 Wigmore, Susan, Margaret — Burns, Susan, Margaret  
 Wilkinson, Kathryn, Lynn — O'Meara, Kathryn, Lynn  
 Wilson, Jane, Marie — Scott, Jane, Marie  
 Wilson, Michelle, Adele — Reedman, Michelle, Adele  
 Wilson, Susan — Anderson, Susan  
 Wisdom, Ronette, Amthipty — Wisdom-Gaba, Ronette, Amthipty  
 Wong, Choon, Hoe — Wong, Victor, Choon, Hoe  
 Wong, Sook, Kuen — Wong, Genevieve, Sook, Kuen  
 Woodall, Barbara, Dawn — Hockin, Barbara, Dawn  
 Woodley, Lisa, Kim — Chow, Lisa, Kim  
 Woolman, Christopher, Gordon — Reid, Christopher, Gordon, Jonathon  
 Wright, Jeremy, Lee — Trilsbeck, Jeremy, Lee  
 Wu, Bao, Ying — Chiu, Bao, Ying

Yates, Shelley, Delia — Blair, Shelley, Delia  
 Yee, Marlene — Ing, Marlene  
 Young, Carol, Vanessa — Young-Ritchie, Carol, Vanessa  
 Zadow, Lorraine, Catherine — Costello, Lorraine, Catherine  
 Zarnett, Paula, Heather — Shrott, Paula, Heather  
 Zatezic, Milena — Dragicevic, Milena  
 Zdenek, Sarah-Jane — Fernandes, Sarah-Jane  
 Zicari, Concetta, Anne — Corbett, Concetta, Anne  
 Zimmerman, Sophia — Gunn, Sofia  
 Zubrigg, Sandra, Lynne — Tutt, Sandra, Lynne  
 Zych, Elzbieta — Laube, Elzbieta

CAROLYNN LA CHAPELLE,  
 Deputy Registrar General.

(4594) 6

NOTICE IS HEREBY GIVEN that the following changes of name were granted during the week ending January 25th, 1991. The listing below shows the previous name followed by the new name.

AVIS EST PAR LA PRÉSENTE DONNÉ que les changements de noms suivants ont été accordés au cours de la semaine se terminant le 25 janvier 1991. La liste ci-dessous indique les anciens noms suivis par les nouveaux noms.

Abdilla, Mary — Gesualdi, Mary  
 Adams, Sherri, Leigh, Ann — MacPhee, Sherri, Leigh, Ann  
 Adebiiyi, Sunday, Adesina — Adebiiyi, Adesina, Sunday  
 Adrain, Laurie, Catherine — Morrison, Laurie, Catherine  
 Aitchison, Tanya, Marie — Hounsell, Tanya, Marie  
 Alberelli, Olga, Victoria, Wilhelmina — Vincent, Serene  
 Ali, Krishna, Reya, Derva — Ali-Dabydeen, Krishna, Reya, Derva  
 Aljoe, Annette, Elaine — Kohler, Annette, Elaine  
 Allard, Maria, Yvonne, Angele — Ruder, Maria, Yvonne, Angele  
 Allevato, Nancy, Jo — Clark, Nancy, Jo  
 Amponsah, Martin, Kwame — Afram, Ernest, Kwaku  
 Anderson, Donna, Rose — Kowalewicz, Donna, Rose  
 Andrews, Julie, Catherine — Helps, Julie, Catherine  
 Anscumb, Joni-Lyn — Raunig, Joni-Lyn  
 Appathurai, Anandhi, Judith, Andrea — Bhaskar, Anandhi, Judith, Andrea  
 Arcand, Joanne, Theresa — Van Den Tillaart, Joanne, Theresa  
 Archambault, Amanda, Renata — Fisher, Amanda, Renata  
 Archibald, Archie — Terrace, Archie, Hudson, Nijel  
 Archibald, Loretta, Myria, Jayne — Terrace, Loretta, Myria, Jayne  
 Archibald, Myranda, Symantha — Terrace, Myranda, Symantha  
 Tameilya, Renae  
 Archibald, Nathanyel, Lucas, Angus, Hudson, Scot — Archibald Terrace, Nathanyel, Lucas, Angus, Scotland  
 Arias, Christina, Sanchez — Ibanez, Christina, Sanchez  
 Arnborg, Patricia, Elaine — Mitchell, Patricia, Elaine  
 Arnold, Olga — Cormack, Olive  
 Arrigo, Theresa, Marie — Arrigo-Ellul, Theresa, Marie  
 Arroyuelo, Johanna — MacNeill, Johanna  
 Ashby, Donna, Jean — Bradbury, Donna, Jean  
 Ashby, George, Wayne — Bradbury, George, Jacob, Wayne  
 Asselin, Lyse, Marie, Helene — Scissons, Lyse, Marie, Helene  
 Atkins, Amanda, Eileen — Hulme, Amanda, Eileen  
 Aubertin, Gerald, Joseph, Gerard — Mason-Aubertin, Gerald, Joseph, Gerard  
 Auger, Barbara, Dale — Auger Gore, Barbara, Dale  
 Augustesen, Linda — Hands, Linda  
 Auld, Catherine, Anne — Yaychuk, Catherine, Anne  
 Austin, Cynthia, Joan — Austin-Adams, Cynthia, Joan  
 Avon, Joseph, Lucien, Robert — Louisseize, Joseph, Lucien, Robert  
 Babcock, Deborah, Ann — Rittwage, Deborah, Ann  
 Bacciarelli, Anna, Maria — Bacciarelli-Suwalska, Anna, Maria  
 Bailey, Kimberly, Dawn — Cowan, Kimberly, Dawn  
 Bain, Leslie, Caren — Shapiro, Leslie, Caren  
 Baird, Karen, Lee — Babbage, Karen, Lee  
 Baker, Janice, Marie — Geldart, Janice, Marie  
 Baker, Michele — Washburn, Michele  
 Baker, Sandra, Darlene — Hoyle, Sandra, Darlene  
 Banach, Kimberly, Lee — Banach-Decarrie, Madeline, Macy  
 Barbeau, Stella — Dimaria, Stella  
 Barber, Susan, Elaine — Dubois, Susan, Elaine  
 Barlow, Keeley, Ruth — Allington, Keeley, Ruth  
 Barroso, Maria, Odete — Fernandes, Maria, Odete

- Bartlett, Dianne, Lynn — Jackson, Dianne, Lynn  
 Bartlett, Jacqueline — Kennedy, Jacqueline  
 Basinski, Teresa, Jane — Eckford, Teresa, Jane  
 Battaglini, Elverina, Christina — Laba, Elverina, Christina  
 Bauer, Susan, Katherine — Gregorio, Susan, Katherine  
 Bayer, Marina, Helga — Bayer Larocque, Marina, Helga  
 Beaman, Sandra, Elizabeth — Hipson, Sandra, Elizabeth  
 Beatty, Lara, Lynn — Bryant, Lara, Lynn  
 Beauprie, Laura, Lothian — Kollenberg, Laura, Lothian  
 Beausoleil, Marie, Yvonne, Lina — Greenaway, Marie, Yvonne, Lina  
 Beckett, Dawn, Louise — Johnson, Dawn, Louise  
 Beckett, Marian — Lyon, Marian  
 Bedore, Brenda, May — Cameron, Brenda, May  
 Bell, Deborah, Anne — Bell-Kirby, Deborah, Anne  
 Bell, Linda, Pearl — Wilson, Linda, Pearl  
 Bellan, Suzanne — Loyst, Suzanne  
 Bellefeuille, Marie, Louise — Knight, Marie, Louise  
 Belson, Alanda, Florence, Loretta — Hillman, Alanda, Florence, Loretta  
 Benedict, Marie, Pierre, Elizabeth, Mireille — Clarke, Marie, Pierre, Elizabeth, Mireille  
 Bentivoglio, Marianna, Victoria — Vincent, Samara, Lona  
 Bentivoglio, Riccardo, Angelo — Vincent, Tarik, Jonah  
 Berg, Tamara, Florence — Nippard, Tamara, Florence  
 Bergman, Kimberly, Ann — Delamere, Kimberly, Ann  
 Berlot, Anna-Maria — Curtis, Anna-Maria  
 Bernard, Guylaine — Elliott, Guylaine  
 Bertrand, Joanna, Katharine — Thiboutot, Joanna, Katharine  
 Bhattacharya, Unah — Bhattacharya Grieve, Unah  
 Bianchi, Carmina — Petro, Carmina  
 Biback, Barbara, Miriam — Litman, Barbara, Miriam  
 Bidinosti, Susan, Jane — Vaasjo, Susan, Jane  
 Bidner, Barbara, Ann — Pitblado, Barbara, Ann  
 Bilicz, Irene, Bernice — Kutzner, Irene, Bernice  
 Bilton, Donna, Charlene — Bethune, Donna, Charlene  
 Bint, Dolores, Joanne — McCoy, Dolores, Joanne  
 Birchmore, Beth, Anne — Neil, Beth, Anne  
 Bissonnette, Lynn, Marie, Yolande — Gauvreau, Lynn, Marie, Yolande  
 Bjervoy, Lisbeth — Bula, Lisbeth  
 Black, Jennifer, Holly, Rage — Bradley, Jennifer, Holly, Rage  
 Blair, Donna, Doreen — Baylis, Donna, Doreen  
 Blazino, Jessica, Marie — Nickerson, Jessica, Marie  
 Boekestijn, Lena, Martina — Regnerus, Lena, Martina  
 Bogaert, Debbie, Ann — Simon, Debbie, Ann  
 Boghosian, Jodi, Lynn — Karrow, Jodi, Lynn  
 Bogucki, Amanda, Lee — Kellam, Amanda, Lee  
 Bogucki, Elizabeth, Ann — Kellam, Elizabeth, Ann  
 Boldt, Tammy, Vanessa — Elliott, Tammy, Vanessa  
 Bolger, Monica, Marie — Bilodeau, Monica, Marie  
 Bolger, Sharon, Elizabeth — Butler, Sharon, Elizabeth  
 Boomhower, Jennifer, Ann — McCaffrey, Jennifer, Ann  
 Bortolotto, Daniela, Maureen — Crisman, Daniela, Maureen  
 Borutskie, Colleen, Ann — Wellwood, Colleen, Ann  
 Boston, Heather, Lynn — Sommerville, Heather, Lynn  
 Bouillon, Debra, Amelia, Muriel — Morris, Debra, Amelia, Muriel  
 Bowman, Denise, Lorraine — Miedzinski, Denise, Lorraine  
 Bradbury, Tracey — Reid, Tracey  
 Bradshaw, Kimberley, Lynne — Cavers, Kimberley, Lynne  
 Brannigan, Carole, Ann — Connolly, Carole, Ann  
 Brant, Nadine, Lynne — Lee, Nadine, Lynne  
 Break, Sandra, Ruth — Gibel, Sandra, Ruth  
 Brett, Elsie, Marie, Maud — Rowat, Elsie, Marie, Maud  
 Brisson, Marie, Yolande, Johanne — Brisson-Lauzon, Marie, Yolande, Johanne  
 Broomer, Sandra, Doreen — Rutter, Sandra, Doreen  
 Brophy, Kelly-Ann, Joan — Couturier, Kelly-Ann, Joan  
 Brown, Barbara, Louise — Trumpaskas-Brown, Barbara, Louise  
 Brown, Beverley, Anne — Byerlay, Beverley, Anne  
 Brown, Luva, Dennice — Connoy, Luva, Dennice  
 Bruder, Diane, Lynn — Briggs, Diane, Lynn  
 Brydle, Kathrine, Lynn — Maisonneuve, Kathrine, Lynn  
 Bryson, Kandy, Elizabeth — Bower, Kandy, Elizabeth  
 Buckingham, Debra, Lynn — Nelson, Debra, Lynn  
 Bucknell, Sasha, Lee — Bourgoïn, Sasha, Lee  
 Buddingh, Marjorie, Anne — Kilby, Marjorie, Anne  
 Budhram, Esardai — Budhram, Marlene, Esardai  
 Burke, Roslyn — Shack, Roslyn  
 Burnett, Jo-Anne, Carmen — Penny, Jo-Anne, Carmen  
 Burnett, Mark, Allan — Harrison, Mark, Kyle  
 Burns, Patrice, Joan — Blackmore, Patrice, Joan  
 Burton, Donna, Louise — Dunk, Donna, Louise  
 Burton, Kimberly Ann — Stoner, Kimberly, Ann  
 Byrne, Teresa, Ann — Vollob, Teresa, Ann  
 Calder, Sherri, Lynn — Menard, Sherri, Lynn  
 Caldwell, Patricia, Jessie, Eileen — Sinclair, Patricia, Jessie, Eileen  
 Campbell, Ann, Louise — Peixoto, Ann, Louise  
 Campbell, Anne, Louise — Bohlken, Anne, Louise  
 Campbell, Catherine, Mary — Moher, Catherine, Mary  
 Campbell, Charlene, Ruth — Clarke, Charlene, Ruth  
 Campbell, Heather, Jean — Westcott, Heather, Jean  
 Campbell, Jo-Anne, Lee — Tennant, Jo-Anne, Lee  
 Campbell, Patricia, Donna, Marie — Darbyshire, Patricia, Donna, Marie  
 Canavan, Kathryn, Elizabeth — Allaway, Kathryn, Elizabeth  
 Canning, Donna, Marie — Oliver, Donna, Marie  
 Cansdale, Elizabeth, Margaret — Gearing, Elizabeth, Margaret  
 Cardwell, Cindy, Ann — Roberts, Cindy, Ann  
 Carpenter, Laurie, Elaine — Thompson, Laurie, Elaine  
 Carpino, Gaetano — Capino, G. Joseph  
 Carr, Cora, Marie — O'Sullivan, Cora, Marie  
 Carr, Deborah, Jane — Carr-Brazier, Deborah, Jane  
 Carroll, Virginia, Lea — Huxtable, Virginia, Lea  
 Carruthers, Constance, Laura — Pethick, Constance, Laura  
 Carruthers, Gail, Susan, May — Kidd, Gail, Susan, May  
 Case, Eileen, Ruth — Vogn, Eileen, Eryn, Rene  
 Case, Michelle, Rene — Vogn, Michelle, Rene  
 Cattana, Joanne, Ruperta, Frances — Dawydchak, Joanne, Ruperta, Frances  
 Catton, Lea, Allin — Pender, Lea, Allin  
 Ceccato, Christopher, Louis — Pettay, Christopher, Louis  
 Champion, Rosemary, Ann — Vise, Rosemary, Ann  
 Chan, Fung, Heung — Chiang, Gina, Fung, Heung  
 Chan, Linda, Louella — Cioffi, Linda, Louella  
 Chan, Yin, Ching, Katherine — Ho, Yin, Ching, Katherine  
 Charlebois, Mary, Madelaine, Louise, Claudine — Sabourin, Mary, Madelaine, Louise, Claudine  
 Chen, Christine, Ann — Baird, Reta, Christie  
 Chin Leung Fatt, Joanne, Monica — Chen, Joanne, Monica  
 Christie, Catherine, Marie — Owen, Catherine, Marie  
 Chung, Beverley, Gean — Washington, Beverley, Gean  
 Ciampaglia, Elizabeth, Mary — Kaminski, Elizabeth, Mary  
 Ciochon, Halina, Jozefa — Wroblewski, Halina, Jozefa  
 Clarke, Jennifer, May — Clarke Wilkes, Jennifer, May  
 Clement, Caroline, Anne — Maatta, Caroline, Anne  
 Coates, Marie, Deline, Therese — Murray, Marie, Deline, Therese  
 Coates, Martha, Jean — Coates-Eveleigh, Martha, Jean  
 Cockburn, Alan, Graham — Colburn, Alan, Graham  
 Cocks, Laura, Lynn — Pelletier, Laura, Lynn  
 Coe, Kathleen, Lynne — Fraser, Kathleen, Lynne  
 Coffey, Lucille, Anne — Young, Lucille, Anne  
 Cogill, Sharon, Jeanne — Slaven, Sharon, Jeanne  
 Coleman, Judy, Ann — Simon, Judy, Ann  
 Collier, Shirley, M. — Collier-Lundrigan, Shirley, M.  
 Collin, Candace, Ann, Gloria — Lariviere, Candace, Ann, Gloria  
 Collins, Sandra — Lajeunesse, Sandra  
 Colon, Debra, Lynn — McCormick, Debra, Lynn  
 Colucci, Maria, Pompea — Tessman, Maria, Pompea  
 Conti, Anna — Hodgson, Anna  
 Cook, Paudeen, Margaret — Charman, Paudeen, Margaret  
 Cook, Rhonda, Theresa — Clouthier, Rhonda, Theresa  
 Cooke, Suzanne, Marie — Wooland, Suzanne, Marie  
 Cooley, Lauralee, Florance — Boucher, Lauralee, Florance  
 Cooney, Amber, Rae — Marzel, Amber, Rae  
 Corbett, Joyce, Lynn, Anne — Wagner, Joyce, Lynn, Anne  
 Cornell, Heather, Ann — Goldberg, Heather, Ann  
 Cory, Patricia, Aileen — Cory York, Patricia, Aileen  
 Couillard, Marie, Fabienne, Claudine — Couillard-Stevens, Marie, Fabienne, Claudine  
 Coulis, Sandra, Lynn, Mary — Cavers, Sandra, Lynn, Mary  
 Coulson, Marie, Annette, Elaine — Webb, Marie, Annette, Elaine  
 Coulter, Anna, Louise — Liberty, Anna, Louise

- Couse, Brenda, Jane — Lobraico, Brenda, Jane  
 Cowan, Sheila, May — Davis, Sheila, May  
 Cox, Charlene, Marie — Durston, Charlene, Marie  
 Cresencia, Sheila, Jane — Vandikas, Sheila, Jane  
 Cucinelli, Raffaella — Blumer, Raffaella  
 Cunningham, Julie, Anne — Cunningham-Marrows, Julie, Anne  
 Currie, Joanne, Christine — Williams, Joanne, Christine  
 Curtis, Kim, Christine — Shanks, Kim, Christine  
 Curtis, Laurie, Lynn — Cooper, Laurie, Lynn  
 Cybulski, Christine, Kelly — Long, Christine, Kelly  
 Da Silva, Maria, Da, Piedade — Pereira, Maria, Da, Piedade  
 Danquah, Kwaku — Danquah, Bobby, Yaw, Asante  
 Davidson, Sandra, Maureen — Fitzpatrick, Sandra, Maureen  
 Davis, Deborah, Marie, Lynn — De Francesco, Deborah, Marie, Lynn  
 Davis, Julia, Teresa — Reid, Julia, Teresa  
 Davy, Denise, Michelle — Davy-Ford, Denise, Michelle  
 Dawe, Dianne — Chahor, Dianne  
 Dawley, Lynne, Marion — Livingstone, Lynne, Marion  
 Day, Carol, Ann — Day Olsen, Carol, Ann  
 Day, Denise, Marie — Bebenek, Denise, Marie  
 De Castro, Monica — De Castro Gargano, Monica  
 De Villena, Romana, S. — Asuncion, Romana, S.  
 Deavitt, Melissa, Dawn — Latter, Melissa, Dawn  
 Dee, Heather, Colleen — Cooke, Heather, Colleen  
 Del Piero, Vania — Mazanik, Vania  
 Delmonte, Diana — Rigby, Diana  
 Demonte, Tomislav — Falandis, Tomislav  
 Dempsey, Karen, Anne — Durocher, Karen, Anne  
 Dennis, Cathy, Marie — Hooper, Cathy, Marie  
 Desjardins, Gisele — Desjardins, Nicole, Gervaise, Marie  
 Devine, Patricia, Louise — Baines, Patricia, Louise  
 Di Barbora, Paola — Crossley, Paola  
 Dickson, Michele, Annette — McLeod, Michele, Annette  
 Dicola, Gilda, Theresa — Dicola Mills, Gilda, Theresa  
 Diep, Kiet-Phan — Lam, Sally, Kit-Fan  
 Dignum, Danielle, Frances — Burelle, Danielle, Frances  
 Diletti, Denise, Elizabeth — Diletti-Hobers, Denise, Elizabeth  
 Dillon, Jo Ann — Dillon-Smith, Joann  
 Dilworth, Joan, Theresa — Copp Joan, Theresa  
 Dishaw, Janet, Fay — Sherman, Janet, Fay  
 Dodig, Snjezana — Rupcic, Snjezana  
 Dolezel, Eve — Miller, Eve  
 Donnelly, Julie — Sigal, Julie  
 Dorgan, Margaret, Mary, Agnes — Golloher, Margaret, Mary, Agnes  
 Doucette, Donna, Lynn, Marie, Therese, Pauline — Maciag, Donna,  
 Lynn, Marie, Therese, Pauline  
 Doupe, Micheal, Ernest — Gaboury, Micheal, Ernest  
 Dowd, Anne, Marie — Parypa, Anne, Marie  
 Downes, Karen, Elizabeth — Heysel, Karen, Elizabeth  
 Downie, Jocelyn, Grant — Abernethy, Jocelyn, Grant  
 Downs, Jill, Mary — Downs Schaefer, Jill, Mary  
 Dowrick, Kay, Marlene — Browne, Kay, Marlene  
 Doyle, Elizabeth — Doyle-Benoit, Elizabeth  
 Draghici, Ileana — Teodorescu, Ileana  
 Driver, Ann, Lois — Olver, Ann, Lois  
 Drozd, Tania — Lastiwka, Tania  
 Duarte Guerreiro, Betty — Guerreiro Figueiredo, Betty  
 Dubreuil, Robbie, Tyler — Beier, Robbie, Tyler  
 Dubreuil, Yvonne, Jeannette — Dubreuil-Cormier, Yvonne, Jeannette  
 Duffy, Michelle, Starr — West, Michelle, Starr  
 Dunn, Carolyn, Dawn — Frederickson, Carolyn, Dawn  
 Dunn, Elisabeth, Mary — Webber, Elisabeth, Mary  
 Dunn, Gillian, Elaine — Scheurer, Gillian, Elaine  
 Dupuis, Cynthia, Louise — Amodeo, Cynthia, Louise  
 Dupuis, Mary, Etta, Margaret — Worrall, Mary, Etta, Margaret  
 Duval, Lyne, Nathalie — Ellis, Lyne, Nathalie  
 Dwarika, Rajistree — Bhatti, Rajistree  
 Eagles, Diane — Blazey, Diane  
 Earle, Patricia, Lee — McGuire, Patricia, Lee  
 Easton, Jennifer, Margaret — Costello, Jennifer, Margaret  
 Eaton, Colleen, Anne — Oliver, Colleen, Anne  
 Ellery, Patricia, Lynn — Bennett, Patricia, Lynn  
 Engel, Kimberly, Anne — Engel Bakhsh, Kimberly, Anne  
 Entwistle, Anne, Rosemary — Pattullo, Anne, Rosemary  
 Epworth, Billie, Duane — Epworth, William, Duane  
 Eramo, Tania — Masoudi, Tania  
 Fairbairn, Laurie, Anne — York, Laurie, Anne  
 Fairclough, Elizabeth, Anne — Hutchings, Elizabeth, Anne  
 Falcao-Pereira, Paulina, De Jesus — Gast, Paulina, De Jesus  
 Fawcett, Candy, Ann — Cooke, Candy, Ann  
 Fehr, Aganetha — Fehr, Nancy, Aganetha  
 Felice, Nunzia, Rachela, Joy — Verta, Nunzia, Rachela, Joy  
 Felsbourg, Dawn, Kathleen — Beaton, Dawn, Kathleen  
 Fennell, Joan, Louise — Chapple, Joan, Louise  
 Ferguson, Debra, Ann — Holm, Debra, Ann  
 Ferraro, Anna, Franca — Zaccagna, Anna, Franca  
 Ferrell, Cynthia, Louise — Dainard, Cynthia, Louise  
 Ferris, Tina, Marie — Fitzner, Tina, Marie  
 Fideau, Terri-Anne, Frances — Warburton, Terri-Anne, Frances  
 Finlayson, Tracy, Ann — Armstrong, Tracy, Ann  
 Fintelman, Cynthia, Lee — Kwekel, Cynthia, Lee  
 Fisher, Ina, Marlene — Fisher-Heasman, Ina, Marlene  
 Fisher, Karen, Elizabeth — Radic, Karen, Elizabeth  
 Fisher, Michael, Paul — Odjig, Michael, Paul  
 Fitzner, Kirsty, Monica — Hunter, Kirsty, Monica  
 Foebel, Diane, Else — Rubinato, Diane, Else  
 Foell, Tara, Frances — Skye, Tara, Chyra  
 Forsythe, Tammy, Patricia — Schutt, Tammy, Patricia  
 Fostey, Barbara, Ann — Fostey-Tymec, Barbara, Ann  
 Fournier, Danielle — Bertrand-Fournier, Danielle  
 Francoeur, Cindy, Lee-Anne — Doughty, Cindy, Lee-Anne  
 French, Tracy, Lynn — Mayes, Tracy, Lynn  
 Fry, Janice, Ruth — Rogers, Janice, Ruth  
 Fullerton, Lynn, Elizabeth — Fullerton, Lynn, Elizabeth  
 Furdyk, Lesia, Ola — Mucy, Lesia, Ola  
 Furniotis, Maria, Phyllis — Ramsay, Maria, Phyllis  
 Gadalla, Victor, Sabee, Kody — Kody, Victor, Sabee  
 Gadhoke, Jagjit, Singh — Gadhoke, Jay, Jagjit, Singh  
 Gagne, Rhona, Margaret, Tolland — Laroche, Rhone, Margaret,  
 Tolland  
 Galan, Melanie, Dee — Wilson Galan, Melanie, Dee  
 Galata, Felicia, Marie — Galata Wilson, Felicia, Marie  
 Gallo, Gina — Kapular, Gina  
 Ganase, Indrani — Ganse-Oldham, Indrani  
 Ganassin, Linda, Maria — Lazzam, Linda, Maria  
 Gandhi, Prafulla — Savedra, Prafulla  
 Garbacik, Marta, Krystyna — Michta, Marta, Krystyna  
 Gaspar, Tammy, Elizabeth — Grieve, Tammy Elizabeth  
 Gentili, Veronica — Ierullo, Veronica  
 George, Donna, Marie — Twine, Donna, Marie  
 George, Ruthann, Marie — Twine-George, Lisa, Ruthann, Marie  
 Gerster, Lynne, Alison — Johnstone, Lynne, Alison  
 Gervais, Hellen, Yvonne — Caul, Hellen, Yvonne  
 Gesicki, Irene, Barbara — Saffran, Irene, Barbara  
 Gibson, Elizabeth, Jane — Snyder, Elizabeth, Jane  
 Gibson, Mary, Anne — Pronko, Mary, Anne  
 Giglio, Tany, Maria-Luisa — Witkowski, Tany, Maria-Luisa  
 Giles, Debra, Winnifred — Glennie, Debra, Winnifred  
 Gillies, Joan, Catherine — Brocklebank, Joan, Catherine  
 Gillis, Tracy — Vaughan, Tracy  
 Gilmour, Elizabeth, Edna — Stoqua, Elizabeth, Edna  
 Gittens, Janeta — Caddle, Janeta  
 Glancey, Michael, James — Roberts, Michael, James  
 Glaser, Kristina, Christine, Maria, Manon — Levis, Kristina, Christine  
 Glover, Susan, Patricia — Di Blasio, Susan, Patricia  
 Godmaire, Donald, Andre, Joseph — Shaw-Godmaire, Donald, Andre,  
 Joseph  
 Goffart, Vivian — Goffart Humphreys, Vivian  
 Gohier, Margaret, Ellen — Jacobs, Margaret, Ellen  
 Goldrup, Dawn-Marie — Glover, Dawn-Marie  
 Gopinathan, Arun — Menon, Arun  
 Gopinathan, Rohan — Menon, Rohan  
 Gordon, Scott, Andrew — Davison, Scott, Andrew  
 Gossman, Sylvia, Jean — Cook, Sylvia, Jean  
 Graci, Anna — Raso, Anna  
 Graham, Andrew, Richard — Robinson, Andrew, Richard  
 Greco, Angela, Ann, Marian — Gibson, Angela, Ann, Marian  
 Green, Catherine, Mary — McIlwaine, Catherine, Mary  
 Green, Sharon, Elizabeth — Palmateer, Sharon, Elizabeth  
 Greene, Megan, Lee — Wickett, Megan, Lee  
 Greene, Shannon, Elizabeth — Wickett, Shannon, Elizabeth  
 Gromoll, Heidi, Rosa — O'Shea, Heidi, Rosa

- Groombridge, Scott, John — Evans, Scott, John  
 Gropp, Elizabeth, Ann — Brandes, Elizabeth, Ann  
 Grundy, Nancy, Ruth — Van Nieuwenhuizen, Nancy, Ruth  
 Gualano, Lee, Ann — Hartley, Lee, Ann  
 Gunter, Susan, Anette — Jacobs, Susan, Anette  
 Guselle, Sylvia, Carmen — Tomala, Sylvia, Carmen  
 Guzman Arias, Elida — Coward, Elida  
 Hachey, Jeannie — Hayes, Jeannie  
 Hall, Bobi-Lyn — Shannon, Bobi-Lyn  
 Hallam, Lisa, Marie — Stymest, Lisa, Marie  
 Halmasy, Therese, Marie — Fischer, Therese, Marie  
 Hamadeh, Hamadeh — Hamady, Eli  
 Hanna, Constance — Wallbank, Constance  
 Harder, Helen, Faye — Holland, Helen, Faye  
 Harder, Linda, Annette — Washburn, Linda, Annette  
 Harder Knelssen, Nina, Aganetha — Suderman, Nina, Aganetha  
 Harding, Susan, Annette — Harding Scharfenberg, Susan, Annette  
 Hare, Lesley, Louise — Blank, Lesley, Louise  
 Harnett, Debra, Lynn — MacInnis, Debra, Lynn  
 Harris, Stacey, Leigh — Ferguson, Stacey, Leigh  
 Harrison, Judith, Mary — Forsyth, Judith, Mary  
 Harrison, Lauren, Edith — Boudreau, Lauren, Edith  
 Harshaw, Shelley, Maureen — Steed, Shelley, Maureen  
 Hartung, Lorraine, Pearl — Lehman, Lorraine, Pearl  
 Hassen, Donna, Marie — Hoffman, Donna, Marie  
 Hatheway, Valerie, Kim — Sowa, Valerie, Kim  
 Hawes, Johnny, Benjamin, Roy — Good, Johnny, Benjamin, Roy  
 Hayden, Janice, Marie — Vanderscheer, Janice Marie  
 Hayes, Patty, Jo — Kent, Patty, Jo  
 Hayward, Jean, Lawson, Gibb — Johnansen, Jean, Lawson, Gibb  
 Healey, Lisa, Anne — Cordick, Lisa, Anne  
 Hector, Joanne, Marie — Gauthier, Joanne, Marie  
 Henderson, Desa, Marie — Henderson-Purdon, Desa, Marie  
 Hendriks, Bonnie, Jean — Plumb, Bonnie, Jean  
 Herman, Ellen, Wendy — White, Ellen, Wendy  
 Heron, Anne, Marie — Heron-Francis, Anne, Marie  
 Hewitt, Robert, Howard — Miller-Hewitt, Robert Howard  
 Hewton Rose, Mary — Riley, Rose, Mary  
 Hicks, Karena, Jean — Holgate, Karena, Jean  
 Hicks, Scott, Wesley — Best, Scott, Wesley  
 Hicks, Wayde, Douglas — Best, Wayde, Douglas  
 Hildebrandt, Stephanie, Anne — Bain, Stephanie, Anne  
 Hill, Annette, Michelle — Beatty, Annette, Michelle  
 Hill, Linda, Gail — Howick, Linda, Gail  
 Hillyer, Suzette, Lenora — Jones, Suzette, Lenora  
 Hirano, Tami, Lynn — Hayman, Tami, Lynn  
 Hogan, Victoria, Leigh — Kokotec, Victoria, Leigh  
 Holder, Catherine, Ann — Rankin, Catherine, Ann  
 Holland, Eileen, Catherine — Ricciardi, Eileen, Catherine  
 Holland, Gail, Carol — Seed, Gail, Carol  
 Holleman, Susan, Joy — Spagnolo, Susan, Joy  
 Holman, Mary, Christine — Ellacott, Mary, Christine  
 Homen, Lucia, Pires — Cho, Lucia, Pires  
 Houghton, Margaret, Janet — Lailey, Margaret, Janet  
 Hounsell, Genevieve, V. — Rogers, Genevieve, V.  
 How Tai Wah, Pee Yong — How, Marguerite, Young  
 Howard, Kate, Reid — Howard, Katherine, Joanne, Reid  
 Howard, Linda, Marie — Gray, Linda, Marie  
 Howard, Thomas, Edward — Howard, Ted, Edward  
 Howell, Margo, Glenna — Webb, Margo, Glenna  
 Howes, Holly, Ann — Howes Roberts, Holly, Ann  
 Howey, Ann, Frances — Burling, Ann, Frances  
 Hughes, Michael, Kenneth — Hoffman, Michael, Kenneth  
 Hulland, Leonard, Arthur — Redmond, Leonard, Arthur  
 Hunter, Deborah, Marie — Van Niedeck, Deborah, Marie  
 Husmenoff, Ayshe, Ismalova, Redjebov — Bayar, Ayshe  
 Husmenoff, Behice, Salieva — Bayar, Behice  
 Husmenoff, Ismail, Receboff — Bayar, Ismail  
 Husmenoff, Orhan — Bayar, Orhan  
 Hutchinson, Catherine, Marie — Hutchinson Leibovitch, Catherine, Marie  
 Hynes, Jodi, Katherine — Beaulne, Jodi, Katherine  
 Igav, Tiina — Rodgers, Tiina  
 Ignacio, Cynthia, Marie — Balazsovsits, Cynthia, Marie  
 Ilitsky, Elaine — Fowlie, Elaine  
 Irwin, Charlanne, Rose — Milroy, Charlanne, Rose  
 Isherwood, Sharon, Elizabeth — Abdool, Sharon, Elizabeth  
 Issendorf, Hayley, Kate — Scanlan, Hayley, Kate  
 Jackiewicz, Krystyna — Kosinski, Krystyna  
 Jacklynn, Yvonne, Vera — Conway, Yvonne, Vera  
 Jamnik, Bernardka, Helena — Jamnik-Charpentier, Bernardka, Helena  
 Jansen, Elizabeth, Joyce — Roy, Elizabeth, Joyce  
 Jarrell, Merrie-Dawn — Bruce, Merrie-Dawn  
 Jasky, Kimberly, Ann — Vance, Kimberly, Ann  
 Jean, Helen — Fung, Helen  
 Jenneault, Anastasia, Kathleen — Madisen, Anastasia, Kathleen  
 Jennings, Deanna, Laimdota — Jennings-Gray, Deanna, Laimdota  
 Jennings, Lesley, May — Cosgrove, Lesley, May  
 Jerez, Myriam, Fabiola — Latuski, Myriam, Fabiola  
 Jeynes, Carol, Ann — Timlock, Carol, Ann  
 Johns, Catherine, Joanne — Allen Catherine, Joanne  
 Johnson, Leigh-Ann, Michelle — Stockill, Leigh-Ann, Michelle  
 Johnston, Sandra, Jean — Willcox, Sandra, Jean  
 Jones, Naomi, Suzanne — Lamond, Naomi, Suzanne  
 Jonke, Astrid, Anne, Marie — Jones, Astrid, Anne, Marie  
 Joslin, Nanette, Wendy — Asparian, Nanette, Wendy  
 Jung, Verna, Marilyn — Law, Verna, Marilyn  
 Jutras, Michele, Diane — Ferdinand, Michele, Diane  
 Kakekayash, Elizier — Kakekayash, Eli  
 Kalmar, Angela, Elizabeth — O'Reilly, Angela, Elizabeth  
 Kanagalingam, Anandaruby — Kannathas, Anandaruby  
 Kangasniemi, Timo, Tapani — Niemi, Tim, Tapani  
 Katz, Scott, Ryan — Csele, Scott, Ryan  
 Kavanaugh, Sandra, Ruth, Mary — Halliday, Sandra, Ruth, Mary  
 Kearns, Theresa, Marie — Barbour, Theresa, Marie  
 Kekewich, Sandra, Kathleen — Morro, Sandra, Kathleen  
 Kelly, Mary, Ellen — Kelly Jamieson, Mary, Ellen  
 Kelly, Patrina, Marie — McBride, Patrina, Marie  
 Kempers, Grace, Dianne — Wilde, Grace, Dianne  
 Kempers, Marlene, Regina — Davison, Marlene, Regina  
 Kennedy, Eileen, Teresa — Burns, Eileen, Teresa  
 Kent, Jill, Marie — Graham, Jill, Marie  
 Kertesz, Irene — Dunlop, Irene  
 Kesselring, Terra, Lynn, Robin — Sabourin, Terra, Lynn, Robin  
 Kestle, Sarah, Jane — Bieman, Sarah, Jane  
 Khossousi, Farah — Voth, Farah  
 King, Angela, Susan — Hall, Angela, Susan  
 King, Dawna, Lynne — Gatien, Dawna, Lynne  
 King, Kathryn, Elizabeth — Fitzpatrick, Kathryn, Elizabeth  
 Kinloch, Patricia, Lee — Moyses, Patricia, Lee  
 Kirschner, Yvonne, Elisabeth — Hirst, Yvonne, Elisabeth  
 Kitchings, Julia, Dale — Finn, Julia, Dale  
 Kitts, Kimberly, Anne — Kitts-Connelly, Kimberly, Anne  
 Klein, Patricia, Lynn — Lalonde, Patricia, Lynn  
 Klein, Shirley — Klein, Sarah  
 Knight, Beverly, Ann — Warren, Beverly, Ann  
 Knight, Kimberly, Ann — Fisher, Kimberly, Ann  
 Knych, Renata — Gorka, Renata  
 Koebel, Laurie, Ann — Voisin, Laurie, Ann  
 Kok, Robert, Steven — Cook, Robert, Steven  
 Koluda, Aldona, Katarzyna — Cywinski, Aldona, Katarzyna  
 Konderak, Christine — Guild, Christine  
 Konkoly, Gizella, Magdalena — Clarysse, Gizella, Magdalena  
 Koo, James, Junn, Shing — Koo, Clement, Jun, Sing  
 Koo, Priscilla, See, Ling — Koo, Tracy, See, Link  
 Koo, Stanley, Tze, Kim — Koo, Vincent, Tze, Kim  
 Kopera, Jo-Anne, Lynne — Leathen, Jo-Anne, Lynne  
 Kore, Bertha, Ida — Paterson, Bertha, Ida  
 Kosakowski, Jan, Helen — White, Jan, Helen  
 Kosakowski, Katherine, Anne — Farrell, Katherine, Anne  
 Kreczmer, Laura, June — Dereniowski, Laura, June  
 Kroon, Laurie, Anne — Twomey, Laurie, Anne  
 Kropf, Martha, Susan — Kuehl, Martha, Susan  
 Kropf, Wendy, Louise — Cotter, Wendy, Louise  
 Kulas, Catherine, Grace — Whitnell, Catherine, Grace  
 Kushneryk, Mary, Ellen — Grieves, Mary, Ellen  
 La Thangue, Danielle, Alexandra — Ward-La Thangue, Danielle, Alexandra  
 La Thangue, Justine, Alyssa — Ward-La Thangue, Justine, Alyssa  
 La Thangue, Sue-Ann, Marilyn, Alexandra — Ward La Thangue, Sue Anne, Marilyn, Alexandra  
 Laberge, Johanne, Marie — Pappas, Johanne, Marie

- Laberge, Marie, Pauline — Marier, Marie, Pauline  
 Labinowicz, Karen, Ann, Bernice — McGregor, Karen, Ann, Bernice  
 Lacey, Lynn, Louise — Lacey Gore, Lynn, Louise  
 Lachapelle, Christina, Guanita, Jacqueline — Rioux, Christina,  
 Guanita, Jacqueline  
 Laderoute, Alice, Marguerite — Girard, Alice, Marguerite  
 Lagrue, Alison, Louise — Campbell, Alison, Louise  
 Lai, Ming, Wai — Lai, Annie, Ming, Wai  
 Lai, Sandra, Fung, King — Fok, Sandra, Fung, King  
 Laing, Catherine, Jane — Sedore, Catherine, Jane  
 Lakhani, Geeta — Liladhar, Geeta  
 Lakic, Aleksandra — Newell, Aleksandra  
 Lallouet, Brenda, Dianne — Bates, Brenda, Dianne  
 Lam, Nghiep, Duong — Lam, Oscar, Yip, Tong  
 Lam, Shaw, Hwang — Lam, Andy  
 Lam, Tu, Phung — Lam, Samantha  
 Lamb, Lynda, Gail — Auger, Lynda, Gail  
 Lamirande, Micheal, Paul — Sheppard, Michael, Paul  
 Lamon, Doris, Helen, Arville — Lamon, Donna, Helen, Arville  
 Landou, Miriam — Kazzab, Miriam  
 Laplante, Marilyn, Ann — Easter, Marilyn, Ann  
 Latham, Christina, Marie — Gingras, Christina, Marie  
 Lau, Yin — Hu, Yin  
 Laude, Lorraine, Lydia — Trapani, Lorraine, Lydia  
 Lauder, Tracy, Lee — Morgan, Tracy, Lee  
 Lavery, Yvonne — Angrove, Yvonne  
 Lawrence, Jeannette, Suzanne — Cameron, Jeannette, Suzanne  
 Lawson, Julie, Katharine — Bremner, Julie, Katharine  
 Lee, Carolyn, Anne — Runge, Carolyn, Anne  
 Lee, Valentia, Man, Wei — Lee-Brotherton, Valentia, Man, Wei  
 Leeming, Cynthia, Louise — Rugo, Cynthia, Louise  
 Legacy, Sherry, Lynn — Hepburn, Sherry, Lynn  
 Lenca, Ellen, Nancy — Bilek, Ellen, Nancy  
 Leonard, Anne — Talampas, Anne  
 Lesage, Linda, Jeanne — Chambers, Linda, Jeanne  
 Letourneau, Marie, Elene, Michele — Letourneau, Michele, Helene,  
 Marie  
 Lewis, Janice, Lynn — Trinchi, Janice, Lynn  
 Lewis, Sandra, Catherine — Antill, Sandra, Catherine  
 Li, Chung, Man — Lee, Ernest, Chung, Mun  
 Li, Edwin, Chun, Lai — Lee, Edwin, Chun, Lai  
 Li, Erik, Chun, Ngai — Lee, Erik, Chun, Ngai  
 Li, Wai, Shing — Lee, Dan, Wai, Shing  
 Liberty, Laura, Lynn — Kaluza, Laura, Lynn  
 Lim, Brenda, Stephanie — Embro, Brenda, Stephanie  
 Linck, Sarah-Ann, Schioler — Finamore, Sarah-Ann, Schioler  
 Lindberg, Brent, Joseph — Morneau, Brent, Joseph, Lindberg  
 Lindsay, Jean, Katherine — Lindsay-Brown, Jean, Katherine  
 Link, Janet, Ellen — Burns, Janet, Ellen  
 Lisiecka, Ewa, Maria — Novada, Ewa, Maria  
 Locke, Lori-Anne — Locke Santos, Lori-Anne  
 Lockett, Donna, Elizabeth — Morris, Donna, Elizabeth  
 Lockett, Shane, Nicholas — Morris, Shane, Nicholas  
 Lockyer, Patricia, Irene — Williams, Patricia, Irene  
 Logel, Carolyn, Bernadette — Wright, Carolyn, Bernadette  
 Long, Catherine — Menard, Catherine  
 Long, Tobi, Marie — Phalen, Tobi, Marie  
 Loo, Ing, Merit — Brown, Ing, Merit  
 Lortie, Rose, Marie — Grace, Rose, Marie  
 Louch, Beverly, Jane — Power, Beverly, Jane  
 Luckese, Christine, Regina — Otani, Christine, Regina  
 Lundy, Barbara, Anne — Davenport, Barbara, Anne  
 Luong, Minh, Chay — Chow, Michael, Dak, Wah  
 Lupo, Linda — Ferguson, Linda  
 MacDonald, Marion, Eileen — Lakins, Marion, Eileen  
 Macdonald, Kate — Hymers, Kate  
 Mackay, Colleen, Elizabeth — Akerley, Colleen, Elizabeth  
 Mackereth, Denise, Lynn — Smith, Denise, Lynn  
 MacNeill, Patricia, Gail — MacLennan, Patricia, Gail  
 Madejska, Grazyna, Lila — Sanchez Madejska, Grazyna, Lila  
 Magajna, Vida, Joy — Johnston, Vida, Joy  
 Maharaj, Angelique, Sharda — Bellisario, Angelique, Sharda  
 Maharaj, Bhogmatie — Maharaj Almeida, Bhogmatie  
 Maio, Carmela — Corrado, Carmela  
 Maisonneville, David, Richard, Rusty, Robert — Barton, David, Richard,  
 Rusty, Robert  
 Majidzadeh, Halim, Mohammad — Halimee, Halim  
 Major, Susan, Lynn — Mason, Susan, Lynn  
 Mak, Ronald, Chi-Keung — Fung, Ronald, Chi-Keung  
 Malhinha, Susan — De Angelis, Susan  
 Malvestuto, Mara — Old, Mara  
 Mamone, Dorianna, Marie — D'Angelo, Dorianna, Marie  
 Mandell, Jessica, Naomi — Mawson, Jessica, Naomi  
 Mann, Kimberly, Grace — Duarte, Kimberly, Grace  
 Maraj, Sarojini — Persad, Sarojini  
 Marett, Rachel, Kennedy, Reid — Marett, Rita, Rachel, Kennedy  
 Marko, Susan, Andrea — Vanderstelt, Susan, Andrea  
 Marks, Daniel, Jordan — Cook, Daniel, Jordan  
 Marrison, Deanna, Michele — Richards, Deanna, Michele  
 Marshall, Karen, Joan — Ranger, Karen, Joan  
 Martin, Joan, Marie — Boulding, Joan, Marie  
 Martindale, Elizabeth, Penelope — Edraki, Elizabeth, Penelope  
 Mash, Laurie, Gayle — Brennan, Laurie, Gayle  
 Massabki, Claire, Ruth — Sattolo, Claire, Ruth  
 Mattar, Nancy, Ann — Salerno, Nancy, Ann  
 Mauthe, Charlene, Joanne — Demoe, Charlene, Joanne  
 Maves, Laurie — Eber, Laurie  
 Maxwell, Audrey, Faith — Stewart, Jill  
 May, Michelle, Lesley — May Wadden, Michelle, Lesley  
 Mayhew, Pamela, Jayne — Wright, Pamela, Jayne  
 Maynard, Sharon, Margaret, Marie — Badour, Sharon, Margaret,  
 Marie  
 McAllister, Karen, Leslie — Tate, Karen, Leslie  
 McDonald, Mary, Suzanne — Kula, Mary, Suzanne  
 McDonnell, Mary, Angela — Poczik, Mary, Angela  
 McIntyre, Sandra, Jane — Wilder, Sandra, Jane  
 McKay, Erwin, Rene — Brunton, Erwin, Rene  
 McLean, Darlene, Ruth — Balkind, Darlene, Ruth  
 McNamara, Tracy, Nita — Stiene, Tracy, Nita  
 McCaffrey, Sharon, Ann — Freeman, Sharon, Ann  
 McCarrol, Mary Ann, Bernadette — Parsons, Mary Ann, Bernadette  
 McCleary, Kathleen, Barbara — Vaccaro, Kathleen, Barbara  
 McCloy, Andrea, Elizabeth — Unrau, Andrea, Elizabeth  
 McCorquodale, Carol, Anne — Kennell, Carol, Anne  
 McCready, Christina, Juliana — Roseman, Christina, Juliana  
 McCulloch, Bessie, Lucretia — Seaman, Bessie, Lucretia  
 McCullough, Mary, Elizabeth — Evans, Mary, Elizabeth  
 McDermid, Melody, Ann, Mae — Cameron, Melody, Ann, Mae  
 McEwan-Campbell, Katherine, Margaret — Campbell, Katherine,  
 Margaret  
 McIvor, Emily-Jean, Geraldine — Smith, Emily-Jean, Geraldine  
 McKee, Wendy, Elizabeth — Butt, Wendy, Elizabeth  
 McKelvie, Adrian, Ailene — Sutherland, Adrian, Ailene  
 McKenna, Sharon, Aurelie — Smyth, Sharon, Aurelie  
 McKeown, Kimberlee, Ann — Piley, Kimberlee, Ann  
 McLean, Trisha, Elizabeth — Cesare, Trisha, Elizabeth  
 McLellan, Maria, Johanna, Appolonia — Kitt, Maria, Johanna,  
 Appolonia  
 McNab, Phyllis, Amy — Patton, Phyllis, Amy  
 McNaughton, Helen, Kathleen — Leach, Helen, Kathleen  
 McNeil-Smith, Lynn, Cecilia — Hamilton, Lynn, Cecilia  
 Meadus, Marianne, Claire — Walli, Marianne, Claire  
 Meilinger, Linda, Raffaella — Piper, Linda, Raffaella  
 Menard, Linda — Masse, Linda  
 Mendes Cerqueira Da Silva, Elisabete — Pereira, Elisabete  
 Mercier, Marie, Anne, Sylvie — Malette, Marie, Anne, Sylvie  
 Merhi, Mohamad, Maan — Merhi, Maan  
 Mertsis, Stella — Duffy, Stella  
 Mervyn, Thelma, Marlene — Taylor, Thelma, Marlene  
 Metcalfe, Carol, Lynn, Marlene — Davis, Carol, Lynn, Marlene  
 Miccolis, Ester, Iolanda — Kessler, Ester, Iolanda  
 Middaugh, Ruby — Morin, Ruby  
 Miedema, Catherine, Anne — Kuhrt, Catherine, Anne  
 Mighton, Jacqueline, Ann — Lark, Jacqueline, Ann  
 Mikuljan, Diana — Pranjic, Diana  
 Miller, Carol, Margaret — Peat, Carol, Margaret  
 Miller, Karie, Ann — Quemby, Karie, Ann  
 Miller, Sandra, Jean — Miller-Hewitt, Sandra, Jean  
 Milley, Karen, Joanne — McKenzie, Karen, Joanne  
 Mintenko, Maj-Lis, Kaarina — Ahonen, Maj-Lis, Kaarina  
 Misener, Lori, Eva — Moser, Lori, Eva  
 Mitchell, Nancy, Gerarda — Eisenhauer, Nancy, Gerarda

- Mitchell, Sharron, Carroll — Nugent, Sharron, Carroll  
 Montgomery, Michelle, Louise — Montgomery-Wilson, Michelle, Louise  
 Mooney, Sharon, Lee — Smith, Sharon, Lee  
 Moore, Donna, Elizabeth — Assenheimer, Donna, Elizabeth  
 Moore, Heather, Ann — Kinch, Heather, Ann  
 Moore, Kimberly, Ann — Conley, Kimberly, Ann  
 Moore, Shirley, Anne — Crossley, Shirley, Anne  
 Morden, Daniel, Oliver — Kurt, Dan, O.  
 Morgan, Mildred, Ruth — Parsons, Mildred, Ruth  
 Moro, Ann, Katherine — Moro-Agowissa, Ann, Katherine  
 Morrone, Rosmarie — Furgiuele, Rosmarie  
 Moss, Heather, Ann — Schidt, Heather, Ann  
 Moss, Teresa, Christine — McCallum, Teresa, Christine  
 Mousseau, Nicole, Renee — Wylie, Nicole, Renee  
 Muir, Christine — Muir Halliday, Christine  
 Mulvihill, Patricia, Lynne — Smith, Patricia, Lynne  
 Murphy, Lori-Ann — Bolivar, Lori-Ann  
 Murray, Linda, Jean — Murray-Herbert, Linda, Jean  
 Nagy, Jonathan, Stuart — Henderson, Jonathan, Stuart  
 Nedacis, Sophie — Staios, Sophie  
 Nelson, Sheila, Kimberlen — Henning, Sheila, Kimberlen  
 Nemeth, Christina, Joanne — Priest, Christina, Joanne  
 Neto, Victoria, Elizabeth, Oliveira — Neto-Azevedo, Victoria, Elizabeth, Oliveira  
 Newell, Ronald, Ryan, Douglas — McDermott, Ronald, Ryan, Douglas  
 Newman, Sharon, Louise — Beattie, Sharon, Louise  
 Newton, Diana, Marie — Brouwer, Diana, Marie  
 Nguyen, Ho, Thanh — Tieu, Thanh, Ho  
 Nguyen, Mai, To — Cao, Mai, To  
 Nicholson, Cheryl — Stewart, Cheryl  
 Nickolas, Jacqueline, Ann — Bailey, Jacqueline, Ann  
 Nisenboim, Eliot, Andrew — Nile, Eliot  
 Nishimoto, Sheri, Lynn, Tina — MacLachlan, Sheri, Lynn, Tina  
 Nooyens, Carl, Adrian — Garipey, Carl, Adrian  
 Norman, Mary-Hannah — Taylor, Mary-Hannah  
 North, Georgina, Ann — Miske, Georgina, Ann  
 Norton, Beverley, Candace — Metler, Beverley, Candace  
 Novais, Maria, Da, Conceicao, Abreu — Novais Esteves, Maria, Da, Conceicao, Abreu  
 O'Connor, Angela, Patricia — Simone, Angela, Patricia  
 O'Gorman, Barbara, Anne — Ervine, Barbara, Anne  
 Olesen, Margit — Frechette, Margit  
 Olsen, Donna, Lee-Ann — Lewis, Donna, Lee-Ann  
 Omrow, Jean, Monica — Reis, Jean, Monica  
 Orane, Donna, Marie — McCleary, Donna, Marie  
 Orr, Linda, Louise — Newman, Linda, Louise  
 Osmanovski, Anita — Nouch, Anita  
 Osmond, Wendy, Pamela — Sallows, Wendy, Pamela  
 Otis, Annette, Marsha — Otis-Frommer, Annette, Marsha  
 Ouellette, Joseph, Doris, Yvon — Kazz, Karson  
 Ozyilmaz, Nurtekin — Armstrong, Nurtekin  
 Packard, Deloris — Walker, Deloris  
 Palermo, Milena — Basile, Milena  
 Palmer, Carolyn, Lee — Wiens, Carolyn, Lee  
 Panelas, Penelope — McCready, Penelope  
 Pantis, Donisia — Ganogiannis, Donisia  
 Panton, Heather, Louise — Furness, Heather, Louise  
 Papoutsis, May, Saneta — Monrose, May, Saneta  
 Par, Deborah, Susan — Gillingham, Deborah, Susan  
 Paradine, Karen, Anne — Hooper, Karen, Anne  
 Parameswaran, Gangatharani — Seevaratnan, Gangatharani  
 Parsons, Debbie, Joyce, Mary — Landry, Debbie, Joyce, Mary  
 Partington, Janice, Marie — Emery, Janice, Marie  
 Pasubio, Luigi — Pasubio, Lou  
 Patrick Sandra-Marie — Rylatt, Sandra-Marie  
 Patterson, Catherine, Lee — Giles, Catherine, Lee  
 Patterson, Kathleen, Clare — Gardiner, Kathleen, Clare  
 Paulo, Theresa, Mary — Ferris, Theresa, Mary  
 Pawlicki, Christine, Katherine — Jefferies, Christine, Katherine  
 Pearce, Donna, Claudette — Smith, Donna, Claudette  
 Pearson, Elizabeth, Gail — Rowe, Elizabeth, Gail  
 Peat, Janet, Elizabeth — Smith, Janet, Elizabeth  
 Peebles, Irene, Peters — Peebles Lovering, Irene, Peters  
 Pelleova, Adriana — Cmarada, Adriana  
 Pelletier, Line — Pelletier, Lynn  
 Pengelly, Karen, Gail — Wilkinson, Karen, Gail  
 Penhale, Terry, Stephen — Vanson-Penhale, Terry, Stephen  
 Perreault, Robin, Marlene, Ann — Demirel, Robin, Marlene, Ann  
 Perry, Michelle, Lori — Vankoughnett, Michelle, Lori  
 Peters, Susanne, Margurite — Luffman, Susanne, Margurite  
 Petersen, Margaret, Elizabeth — Petersen Zavitz, Margaret, Elizabeth  
 Pettersen, Heather, Joy — Smith, Heather, Joy  
 Pettersen, Heather, Joy — Smith, Heather, Joy  
 Pham, Quang, Binh — Pham-Deleon, Binh, Quang  
 Phillips, Margaret, Kay — Robitaille, Margaret, Kay  
 Phinnemore, Tracey, Vera — Walker, Tracey, Vera  
 Phulchand, Fazeela, Mohamed — Alli, Fazeela  
 Pickard, Deborah, Joan — Laramey, Deborah, Joan  
 Pickering, Krystal, Ann-Marie — Duquette, Krystal, Ann-Marie  
 Pidcock, Kathleen-Elizabeth — Young, Catherine, Elizabeth  
 Pidcock, Tiffany, Autumn — Young, Tiffany, Autumn  
 Piekarski, Tina, Roxane — Moore, Tina, Roxane  
 Pilley, Kathleen, Margaret — Higgins, Kathleen, Margaret  
 Pinkerton, Judith, Marianne — Stevens, Judith, Marianne  
 Plant, Barbara, Ann — Joiner, Barbara, Ann  
 Poag, Judy, Marianne — Czukar, Judy, Marianne  
 Point, Robert, Darryl — Stone, Robert, Darryl  
 Pointer, Deborah, Jane — Bentley, Deborah, Jane  
 Poisson, Lisa, Edith, Jean — Orioux, Lisa, Edith Jean  
 Poleszuk, Zdzislaw — Poleszuk, Anna  
 Potts, Kathleen, Elizabeth — Hayden, Kathleen, Elizabeth  
 Power, Deborah, Lynn — Walker, Deborah, Lynn  
 Prashad, Malinie, Davie — Lachman, Malinie, Davie  
 Proctor, Jodi, Christine — Ainsworth, Jodi, Christine  
 Prouse, Lisha, Dianne — Poch, Lisha, Dianne  
 Purcel, Sheila, Grace — Phillips, Sheila, Grace  
 Puskas, Rose, Ann — Carlisle, Lauren, Rose  
 Qian, Jenny, Qin, Yue — Garreffa, Jenny, Qin, Yue  
 Quackenbush, Kim, Leah — Shoveller, Kim, Leah  
 Quinn, Diane, Kathleen — Langford, Diane, Kathleen  
 Quinn, Joseph, Kevin — Windsor, John, Arthur, Edward  
 Race, Jennifer, Alice — Oberparleiter, Jennifer, Alice  
 Racette, Ann, Marie, Lucie — Asselin, Ann, Marie, Lucie  
 Raghunanan, Cherrie, Ann — David, Cherrie, Ann  
 Raines, Melony, Mae — Barnett, Melony, Mae  
 Ramjit, Rajwanti — Mattai, Rajwanti, Tara  
 Ramkissoon, Vashti — Birbal, Vashti  
 Rampersad, Ophelia, Kalautie — Matysiak, Ophelia, Kalautie  
 Randall, Joanne, Elizabeth — Randall-Williams, Joanne, Elizabeth  
 Ratte, Jacinthe, Anne — Madisen, Jacinthe, Anne  
 Ratte, Julie, Amanda — Madisen, Julie, Amanda  
 Ratte, Khrista, Marie — Madisen, Khrista, Marie  
 Reaney, Alison, Lorraine — Brown, Alison, Lorraine  
 Regier, Annette, Marie — Gorr, Annette, Marie  
 Regimbal, Marcel, Joseph, Sylvestre — Ranger, Marcel, Sylvestre  
 Reichstein, Shelley, Anne — Busch, Shelley, Anne  
 Reid, Diane, Margaret — Olson, Diane, Margaret  
 Reid, Hamadi, Igantius — Tomlinson, Hamadi, Igantius  
 Reid, Judy, Anne — Syrette, Judy, Anne  
 Rempel, Ursula — Kelleher, Ursula  
 Rice, Erica, Lynn — Northwood, Erica, Lynn  
 Rice, Helen, Christine — Horsman, Helen, Christine  
 Richard, Cindy, Marie — Kosonic, Cindy, Marie  
 Riddle, Tricia, Frances — Salberg, Tricia, Frances  
 Ridley, Deborah — Watson, Deborah  
 Rinella, Maria, Rita — Holjevac, Maria, Rita  
 Riss, Kimberley, Ann — Riss Deyell, Kimberley, Ann  
 Roach, Laura, Denise — MacGregor, Denise  
 Robbins, Kathryn, Eileen — MacMaster, Kathryn, Eileen  
 Robert, Marie, Paule — Talbot, Marie, Paule  
 Robinson, Janis, Faith — Giammichele, Janis, Faith  
 Robinson, Karen, K., Sandra — McGarrell, Karen, K., Sandra  
 Rodrigues, Candace, Linda, Ann — St Pierre, Candace, Linda, Ann  
 Roeder, Suzanne, Marie, Monique — Roeder-Donnelly, Suzanne, Marie, Monique  
 Rogers, Janice, Eileen — Bondy, Janice, Eileen  
 Roney, Ruth, Margaret — Tam, Ruth, Margaret  
 Roostaeyan, Farhad — Roostaeyan, Farhad, Fred, Russell  
 Ross, Brenda, May — Ramsingh, Brenda, May  
 Ross, Lita, Madeleine — Scruton, Lita, Madeleine  
 Ross, Marie, Aurise, Madeleine — Brunet, Marie, Aurise, Madeleine

- Rouse, Susie, Nora — Hinnecke, Susie, Nora  
 Rowe, Vickie, Louise — DeGroot, Vickie, Louise  
 Ruggiero, Maria, Gracia — Gualtieri, Maria, Gracia  
 Ruiz, Alicia, Beverly — Ruiz-St Onge, Alicia, Beverly  
 Rundle, Deborah, Ann — Schenkel, Deborah, Ann  
 Runstedler, Constance, Louise — Voll, Constance, Louise  
 Ruperto, Romina, Veronica — Staunton, Romina, Veronica  
 Russell, Barbara, Lynne — Russell Morse, Barbara, Lynne  
 Russell, Jennifer, Leigh — Copeland, Jennifer, Leigh  
 Russell, Patricia, Dorothy — Waddell, Patricia, Dorothy  
 Ruth, Kimberley, Catherine — Ruth-Dzingala, Kimberley, Catherine  
 Ruth, Shelley, Ruth, Theresa — Hunt, Shelley, Ruth, Theresa  
 Sahai, Patricia — Gosyne, Patricia  
 Salari, Said — Salari, Steven  
 Salter, Janet, Louise — Salter Tatarsky, Janet, Louise  
 Samaru, Uma — Seetal, Uma  
 Sanclemente, Ernesto — Pico Keshwar, Ernesto  
 Sandrelli, Sheila, Ella — Hotte, Sheila, Ella  
 Sarafian, Ghabriel — Terterian, Mosses  
 Sarafian, Sara — Terterian, Sara  
 Sathiyathan, Sountheri — Xavier, Sountheri  
 Saunders, Lorie, Eleanor — Smith, Lorie, Eleanor  
 Saunders, Paul, Scott — Everette, Paul, Brett  
 Sauve, Donna, Mary — Price, Donna, Mary  
 Schauer, Karen, Elizabeth — Byers, Karen, Elizabeth  
 Schiafone, Salvatorina — Stea, Salvatorina  
 Schmid, Catherine, Mary — Baldwin, Catherine, Mary  
 Schmidt, Kimberly, Christein — McCallum, Kimberly, Christein  
 Schmidt, Tammy, Marie — Lawton, Tammy, Marie  
 Schneider, Lisa, Ann — Ochej, Lisa, Ann  
 Schofield, Kari, Lynn — MacDonald, Kari, Lynn  
 Seabrook, Janine, Marie — Williams, Janine, Marie  
 Sears, Sharon, Louise — Keefe, Sharon, Louise  
 Seddon, Jayne — Payette, Jayne  
 Seeber, Annette, Joanne — Galler, Annette, Joanne  
 Seguin, Joseph, Jean, Ronald — Seguin, John, Ronnie  
 Seigel, Sari, Anne — Seigel-Paulucci, Sari, Anne  
 Sellers, Jennifer, Anne — Paschalis, Jennifer, Anne  
 Senecal, Celena, Joanne — Dymont, Celena, Joanne  
 Serre, Francoise, Denise — Drury, Francoise, Denise  
 Severin, Lorna — Owusu, Lorna  
 Seyrafizadeh, Maryam — Seirafi, Mariam  
 Shaheen Siddiq, Nayeemunnisa — Shaheen, Nayeemunnisa  
 Shalla, Lorraine, Dianne — Hill, Lorraine, Dianne  
 Shaw, Karen, Amanda — Whitehouse, Karen, Amanda, Shaw  
 Shaw, Sandra, Ramona — Shaw-Godmaire, Sandra, Ramona  
 Shean, Tammy, Louise — Timmermans, Tammy, Louise  
 Sherlock, Karen, Edith — Sherlock-Brennan, Karen, Edith  
 Shiwasprasad, Marcella, Angela — Hemlow, Shelley, Jean  
 Shperling, Maya, Alexandrovna — Mironov, Maya, Alexandrovna  
 Siblock, Susan, Dianne — Waddell, Susan, Dianne  
 Sievers, Jacqueline, Christine — Gibbons, Jacqueline, Christine  
 Siew, Mohan, Ram — Goberdhan, Prem, Barbera  
 Sim, Patricia, Kelly — Tos, Patricia, Kelly  
 Simpson, Erica, Scott — Menchetti, Erica, Scott  
 Simpson, Michele, Lynn — Lowrie, Michele, Lynn  
 Skakum, Teena, Marie — Skakum-Dring, Teena, Marie  
 Skinner, Amanda, Jane — McConville, Amanda, Jane  
 Slobodian, Lisa, Jean — Ranger, Lisa, Jean  
 Smietana, Jaroslaw — Harris, Allen, Robert  
 Smith, Alison, Marie — Kells, Alison, Marie  
 Smith, Joanne, Elizabeth — Thompson, Joanne, Elizabeth  
 Smith, Joanne, Elizabeth — Thompson, Joanne, Elizabeth  
 Smith, Mary, Greta — Louis, Mary, Greta  
 Smith, Ruthilyn, Margaret, Geraldine — Hurl, Ruthilyn, Margaret,  
 Geraldine  
 Smith, Terri-Ann — Scott, Terri-Ann  
 Smyth, Deborah, Ann — Marshall, Deborah, Ann  
 Snider, Lana, Dianne — Reinhardt, Lana, Dianne  
 Snook, Julia, Elizabeth — Matchem, Julia, Elizabeth  
 Soares, Lisette, Patricia — Hearn, Lisette, Patricia  
 Sollows, Krista, Lynn — Bigford, Krista, Lynn  
 Soullignatham, Somphone — Sourignatham, Somphone  
 Speirs, Catherine, Ann — Sargent, Catherine, Ann  
 Spence, Christine, Lorraine — Zyss, Christine, Lorraine  
 Speyer, Bernedette — Speyer-Doolan, Bernedette  
 St John, Kimberly, Dawn — Jobidon, Kimberly, Dawn  
 St. John, Pauline, Angela — Francis, Pauline, Angela  
 St-Jean, Linda, Marie — Bisson, Linda, Marie  
 Stanfield, Sheryl, Lynne — Ledingham, Sheryl, Lynne  
 Steele, Victoria, Elizabeth — Dulisse, Victoria, Elizabeth  
 Stephenson, Kimberly, Joan — Planques, Kimberly, Joan  
 Stevenson, Donna, Diane — Collins, Donna, Diane  
 Stewart, Colleen, Teresa — Schramm, Colleen, Teresa  
 Stewart, Kristy, Janet — Butt, Kristy, Janet  
 Stickwood, Leah-Anne, Lynn — Rose, Leah-Anne, Lynn  
 Stocks, Julie — Freemantle, Julie  
 Stockwell, Wendy, Lynn — Lyon, Wendy, Lynn  
 Storms, Brenda, Diane — Sweet, Brenda, Diane  
 Strahle, Mehre — Zuckerman, Mehre  
 Straitton, Lori, Ann — Rodgers, Lori, Ann  
 Suk, Donna, Rachel — Pot, Donna, Rachel  
 Sullivan, Constance, Mary — Sullivan-Foley, Constance, Mary  
 Surprenant, Judith — Gagne, Judith  
 Sutcliffe, Lisa, Ellen — Daignault, Lisa, Ellen  
 Suutari, Karen, Airlie — Suutari, Fricker, Karen, Airlie  
 Swimm, Jacqueline, Marie — Leclair, Jacqueline, Marie  
 Swinton, Elisabeth, Ann — Nerdjivanian, Elisabeth, Ann  
 Szabo, Diane, Anna, Mary — Geertsema, Diane, Anna, Mary  
 Szemenyei, Leanne, Victoria — Luelo, Leanne, Victoria  
 Taitt, Joylyn — Gordon, Joylyn  
 Tarc, Angela, Marie — Boland, Angela, Marie  
 Tarnowsky, Lisa, Mae — Johnston, Lisa, Mae  
 Tataryn, Louise, Ann — Crozier, Louise, Ann  
 Taylor, Anne, Louise — Relph, Anne, Louise  
 Taylor, Lucy, Ellenor — Broadbent, Lucy, Ellenor  
 Telenko, Tammy, Lynn — Russell, Tammy, Lynn  
 Thevasundaram, Sugirthakala — Wijayaraj, Sugirthakala  
 Thistlethwaite, Christopher, Paul — Slater, Christopher, Paul  
 Thomas, Barbara, Gail — Punnett, Barbara, Gail  
 Thompson, Cheryl, Ann — Merriman, Cheryl, Ann  
 Thompson, Heather, Ann — Morgan, Heather, Ann  
 Thompson, Janice, Kim — Harris, Janice, Kim  
 Thomson, Mary, Ellen — Belzile, Mary, Ellen  
 Thomson, Robin, Michele — Hewitt, Robin, Michele  
 Thorpe, Susan, Maria — Ashwood, Susan, Maria  
 Tiffin, Jodie, Ann — James, Jodie, Ann  
 Timpano, Maria — Bouchie, Maria  
 Tindall, Joanne, Margaret — Tindall-Weinstein, Joanne, Margaret  
 Toledo, Susan, Marjorie — Blackburn, Susan, Marjorie  
 Tompkins, Heather, Jeanne — Quance, Heather, Jeanne  
 Torchia, Silvana — Torchia, Silvana  
 Torma, Lorraine, Marie — Meredith, Lorraine, Marie  
 Toulouse, Regina, Harriet, Samuela — Toulouse-Borynec, Regina,  
 Harriet, Samuela  
 Tourond, Diana, Marie — Tourond-Hay, Diana, Marie  
 Townend, Kimberly, Anne — Townend-Willems, Kimberly, Anne  
 Townsend, Dianne, Janet — Fields, Dianne, Janet  
 Trautrim, Christine, Else — Goertzen, Christine, Else  
 Travassos, Eduarda, De, Oliveira — Pilatos, Eduarda, De, Oliveira  
 Tremain, Susan, Mary — Pattison, Susan, Mary  
 Tremblay, Gregoire, Donald, Albert — Peterson, Greg, Donald  
 Tremblay, Tanya, Nicole — Peterson, Tanya, Nicole, Saartina  
 Tresidder, Lise, Deborah, Marie — Murphy, Lise, Deborah, Marie  
 Trotter, Sheila, Jean — Murray, Sheila, Jean  
 Trudeau, Darlene, Ann, Virginia — Wemigwans, Darlene, Ann,  
 Virginia  
 Tucker, Janice, Marie — Kenney, Janice, Marie  
 Tumilowicz, Malgorzata, Anna — Borsuk, Malgorzata, Anna  
 Turner, Kathryn, Ellen — Alexander, Kathryn, Ellen  
 Tward, Melissa, Debra — Goldberg, Melissa, Debra  
 Uhler, Patricia, Marie — Parnell, Patricia, Marie  
 Um, Jong-Yeup — Um, Kyle, Jong-Yeup  
 Underhill, Dereck, Michael, Douglas — Wysevelde, Dereck, Michael,  
 Douglas  
 Usher, Denyse — Crombie, Denyse  
 Vajda, Deborah, Barbara — Lacroix, Deborah, Barbara  
 Valente, Eva — Izzo, Eva  
 Van Antwerpen, Johannes, George — Gerrits, John, George  
 Van Leeuwen, Antonia, Cornelia — Black, Antonia, Cornelia  
 Van Lieshout, Tonia, Dora — Pilla, Tonia, Dora  
 Van Ryswyck, Anita, Josephine — Cowell, Anita, Josephine

Van Tiggelen, Jacoba — Kivisto, Jacoba  
 Vandellen, Sandra — Whitehead, Sandra  
 Vandenhurk, Winnifred, Mae — Singer, Winnifred, Mae  
 Vander Doelen, Lisa, Mary — Elias, Lisa, Mary  
 Vanson, Denise, Louise — Vanson-Penhale, Denise, Louise  
 Vasey, Christine, Marie — Hewitt, Christine, Marie  
 Vasic, Gordana — Pavlovic, Gordana  
 Vassallo, Patricia, Ann — Young, Patricia, Ann  
 Vaupotic, Helen, Marie — Tascona, Helen, Marie  
 Venzky, Judy, Annette — Wills, Judy, Annette  
 Verner, Rachelle, Helene — Simpson, Rachelle, Helene  
 Villalba, Eleonore — Reda, Eleonore, Villalba  
 Vince, Timothy, Robert — Buckland-Vince, Timothy, Robert  
 Vintuks, Sera, Regina — Sheridan, Sera, Regina  
 Volf, Irene, Katherine — Grenon, Irene, Katherine  
 Volpel, Gail, Christine — Shkwarek, Gail, Christine  
 Wadden, Carol, Ann — Metcalfe, Carol, Ann  
 Wagner, Wendy, Leah, Rebecca — Chudziak, Wendy, Leah, Rebecca  
 Walker, Dianne, Margaret — Fraser, Dianne, Margaret  
 Walker, Lianne, Marie — Barley, Lianne, Marie  
 Walter, Marjorie, Elaine — Horan, Marjorie, Elaine  
 Walters, Barbara, Elizabeth — Thomson, Barbara, Elizabeth  
 Walz, Darlene, Marie — Koopman, Darlene, Marie  
 Waring, Kim, Andrea — Russell, Kim, Andrea  
 Watkinson, Lisa, Marie — Roy, Lisa, Marie  
 Watkiss, Jane, Elizabeth — Lynch, Jane, Elizabeth  
 Watson, Carol, Anne — Austin, Carol, Anne  
 Watson, Russell, Omar — Boardi, Ajamu, Nawvena, Kazembe  
 Weatherbie, Kimberly, Jane — De Bortoli, Kimberly, Jane  
 Webb, Karen, Lynne — Babcook, Karen, Lynne  
 Webster, Ronda, Marlene — Badour, Ronda, Marlene  
 Weitendorf, Susan, Hilda, Ann — Moore, Susan, Hilda, Ann  
 Weldon, Cynthia, Ann — Corfe, Cynthia, Ann  
 Werry, Wendy, Leigh — Wakefield, Wendy, Leigh  
 Whelan, Kathleen, Mary — Neville, Kathleen, Mary  
 White, Jason, David — Peters, Jason, David  
 Whitehead, Victoria, Anne — Polera, Victoria, Anne  
 Whittington, Janet, Leah — Whittington-Heeney, Janet, Leah  
 Wiersma, Mary, Charlene — Taylor, Mary, Charlene  
 Wikaruk, Tracey, Lee — Cant, Tracey, Lee  
 Wilkins, Joan, Elizabeth — Gilmour, Joan, Elizabeth  
 Wilkinson, Kim, Joanne — Wilkinson-Smith, Kim, Joanne  
 Willatt, Douglas, Rae — Willett, Douglas, Ray  
 Williams, Angela, Elaine — Holler, Angela, Elaine  
 Williams, Carolyn, Jane — Kschischang, Carolyn, Jane  
 Williams, Donna, Lynn — Topp, Donna, Lynn  
 Williams, Jane, Ruth — Tassielli, Jane, Ruth  
 Williamson, Tracey, Kristine — Latimer, Tracey, Kristine  
 Willison, Lynn, Susanne — Potts, Lynn, Susanne  
 Wilson, Catherine, Lynn — Cabral, Catherine, Lynn  
 Wilson, Genevieve, Jean-Anne — Buckle, Genevieve, Jean-Anne  
 Wismer, Vera, Janet — Glendinning, Vera, Janet, Wismer  
 Wong, Hok, Yan — Wong, Louis, Hok, Yan  
 Wong, Yu, Hei, Wong, Timothy, Yu Hei  
 Wood, Margaret, Minnie — Balheim, Margaret, Minnie  
 Woodiwiss, Kathryn, Ann — Alden, Kathryn, Ann  
 Woods, Richard, Lloyd — Heard, Richard, Lloyd  
 Works, Sheryl, Lynn — Sandison, Sheryl, Lynn  
 Wright, Nadine, Joy — Kiyoshk, Nadine, Joy  
 Wujek, Annmarie — Wujek, Annmarie, Ruth  
 Wyatt, Lorette, Lisa — Pryor, Lorette, Lisa  
 Wysocki, Teresa — Karpinski, Teresa  
 Yaxley, Dianne, Joan — Faist, Dianne, Joan  
 Yeung, Hung, To — Yeung, Raymond, Hung, To  
 Yeung, Nim, Bing — Yeung, Kitty, Nim, Bing  
 Ying, Yuk-Kuen, Judy — Suen, Yuk-Kuen, Judy  
 Yoo, Kuen-Yoo — Yoo, Kinyo  
 Youden, Mary, Esther — Youden-Soltis, Mary, Esther  
 Young, Della, Marie — Young Zenker, Della, Marie  
 Young, Kimberly, Ann, Veronica — Young-Karaman, Kimberly, Ann,  
 Veronica  
 Young, Laura, Jean — Wilding, Laura, Jean  
 Zarudny, Stephen, John — Ruthven, Stephen, John  
 Zavitz, Judith, Elaine — Zavitz-MacDonald, Judith, Elaine  
 Zavitz, Kathryn, Anne — Andrews, Kathryn, Anne  
 Zhao, Meichang — Xia, Yangyun, Caroline

Zhou, Miao, Chang — Ng, Miao, Chang  
 Zomer, Allison, Corinne — Schenk, Allison, Corinne  
 Zucchetto, Cheryl — Alonzi, Cheryl  
 Zwicker, Paula, Lorette — Klante, Paula, Lorette  
 Zwier, Heather, June — Johnson, Heather, June

(4597) 6

CAROLYNN LA CHAPELLE,  
 Deputy Registrar General.

## The Insurance Act/Loi sur les assurances

IN THE MATTER OF THE  
*INSURANCE ACT, R.S.O. 1980,*  
*Chapter 218*

AND

IN THE MATTER OF  
 CANADIAN UNIVERSAL INSURANCE COMPANY LIMITED

### NOTICE OF CANCELLATION OF LICENCE

WHEREAS the licence of CANADIAN UNIVERSAL INSURANCE COMPANY LIMITED to carry on the business of insurance pursuant to *The Insurance Companies Act, R.S.N. 1970, Chapter 176* has been cancelled by order of the Minister of Justice for Newfoundland dated January 23rd, 1991 and notice of such cancellation was given to CANADIAN UNIVERSAL INSURANCE COMPANY LIMITED on the same day;

AND WHEREAS the Minister of Justice for Newfoundland has, pursuant to Section 55 of *The Insurance Companies Act, R.S.N. 1970, Chapter 176*, appointed the Superintendent of Insurance for the province of Newfoundland as Provisional Liquidator of CANADIAN UNIVERSAL INSURANCE COMPANY LIMITED to take immediate charge of the affairs of CANADIAN UNIVERSAL INSURANCE COMPANY LIMITED and exercise all the powers of the company;

TAKE NOTICE THAT pursuant to Section 38 (5) of the *Insurance Act, R.S.O. 1980, Chapter 218*, the licence of CANADIAN UNIVERSAL INSURANCE COMPANY LIMITED to carry on the business of insurance within the province of Ontario is hereby cancelled.

DATED at Toronto, Ontario, this 24th day of January, 1991.

(4598) 6

GRANT SWANSON  
 Superintendent of  
 Insurance (Acting)

## Orders in Council/Décrets

O.C. 66/91

On the recommendation of the undersigned, the Lieutenant Governor, by and with the advice and concurrence of the Executive Council, orders that

1. The portions of highway in the Township of Cornwall, in the United Counties of Stormont, Dundas and Glengarry under the jurisdiction and control of the Ministry of Transportation and Communications being:

- part of the East Half of Lot 13, Concession 7, shown as PARTS 1, 2, 4, and 7;
- part of the original road allowance between the West Half of Lot 12 and the East Half of Lot 13, Concession 7, shown as PARTS 3, 5 and 6;
- part of the original road allowance between concessions 7 and 8 fronting on Lot 13, Concession 8, shown as PART 9;

- part of Lot 13, Concession 8, shown as PARTS 10, 11 and 12; and being
- part of the West Half of Lot 12, Concession 7, shown as PART 8;

on a Plan of Survey P-6065-53 being a Reference Plan deposited in the Land Registry Office for the Registry Division of Stormont as Plan 52R-4099 be designated as the King's Highway, transferred or closed as described below:

- (a) PARTS 7 and 8 be designated as the King's Highway, pursuant to section 7 of the Public Transportation and Highway Improvement Act, R.S.O. 1980, chapter 421, as amended;
- (b) PARTS 6, 7, 8 and 9 be transferred to the Township of Cornwall and be vested in and under the jurisdiction and control of the Township of Cornwall on and after the day on which this Order is approved, pursuant to subsection 29 (4) of the Public Transportation and Highway Improvement Act, R.S.O. 1980, chapter 421, as amended; and
- (c) PARTS 1, 2, 3, 4, 5, 10, 11 and 12 be closed pursuant to subsection 29 (2) of the Public Transportation and Highway Improvement Act, R.S.O. 1980, chapter 421, as amended.

2. The designation as a controlled-access highway contained in Schedule 147 to Regulation 394, R.R.O. 1970 which was added to the said Regulation by Ontario Regulation 193/70, be amended so as to cease to apply to the portion of highway shown as PART 6 on the aforementioned plan.

Recommended

ED PHILIP,  
Minister of Transportation.

Concurred

FRANCES LANKIN,  
Chairman.

Approved and Ordered, January 21, 1991.

(4595) 6

LINCOLN M. ALEXANDER,  
Lieutenant Governor.

## Applications to Provincial Parliament—Private Bills Demandes au Parlement provincial—Projets de loi d'intérêt privé

### PUBLIC NOTICE

The rules of procedure and the fees and costs related to applications for Private Bills are set out in the Standing Orders of the Legislative Assembly. Copies of the Standing Orders may be obtained from:

The Office of the Clerk of the Legislative Assembly  
Room 1521, Whitney Block, Queen's Park  
Toronto, Ontario M7A 1A2

Telephone: 416/963-1300 (Collect calls will be accepted.)

Applicants should note that consideration of applications for Private Bills that are received after the first day of September in any calendar year may be postponed until the first regular Session in the next following calendar year.

CLAUDE L. DESROSIERS,  
Clerk of the Legislative Assembly.

(8699) T.F.N.

## Petitions to Provincial Parliament Pétitions au Parlement provincial

Extract from the Standing Orders respecting petitions

35. (c) Every petition shall:
- (i) be addressed to the Parliament, Legislature or Legislative Assembly of Ontario;
  - (ii) contain a clear, proper and respectful request that the House take some action within its authority;
  - (iii) be written, typewritten or printed, without erasures or insertions;
  - (iv) have its request appear at the top of every sheet, if it consists of more than one sheet of signatures; and
  - (v) contain the names, addresses and original signatures written directly on the face of the petition and not pasted thereon or otherwise transferred to it.
- (d) Every member presenting a petition shall ensure that the petition conforms with the Standing Orders.
- (e) The signature of every member presenting a petition shall be affixed to the petition.

Further information with respect to petitions may be obtained from:

Journals Branch  
Room 110, Legislative Building  
Queen's Park  
Toronto, Ontario  
M7A 1A2

Telephone: 416/965-1406  
(Collect calls will be accepted.)

### SAMPLE FORM FOR PETITIONS

#### PETITION

TO *The Parliament/Legislature/Legislative Assembly* (choose one) of *Ontario*:—

WHEREAS (preamble if required)

WHEREAS (preamble if required)

I/We the undersigned petition the Parliament/Legislative Assembly (choose one) of Ontario as follows:—

(Text of Petition)

Name (printed)	Address (printed)	Signature
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(4268) T.F.N.	CLAUDE L. DESROSIERS, Clerk of the Legislative Assembly.
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## Applications to Parliament of Canada Demandes au Parlement du Canada

### SEVENTH-DAY ADVENTIST CHURCH IN CANADA

NOTICE IS HEREBY GIVEN that, the Seventh-day Adventist Church in Canada, a corporation duly incorporated by chapter 85 of the Statutes of Canada, 1955, as amended, will apply to the Parliament of Canada at the present session thereof, or at either of the two sessions immediately following the present session, for an Act to amend its Act of incorporation for the purpose of changing the provisions establishing its Board

of Directors and governing the composition and powers of the Board and changing other provisions of law governing its constitution.

DR. DOUGLAS DEVNICH  
President  
Seventh-day Adventist Church  
in Canada  
1148 King Street East  
Oshawa, Ontario  
L1H 1H8

(1118) 4 to 7

#### ÉGLISE ADVENTISTE DU SEPTIÈME JOUR AU CANADA

SOYEZ AVISÉS QUE L'Église Adventiste du Septième Jour au Canada, une corporation constituée par le chapitre 85 des Statuts du Canada, 1955, tel que modifié, présentera une demande au Parlement du Canada, au cours de sa session actuelle ou de l'une des deux sessions suivantes, sollicitant l'adoption d'une loi modifiant sa loi constitutive afin de changer les dispositions régissant l'établissement, la composition et les pouvoirs du Conseil d'Administration de l'Église ainsi que d'autres dispositions constitutives.

M. DOUGLAS DEVNICH  
président  
L'Église Adventiste du Septième Jour  
au Canada  
1148, rue King ouest  
Oshawa (Ontario)  
L1H 1H8

(1119) 4 to 7

### Applications to Provincial Parliament Demandes au Parlement provincial

#### THE CORPORATION OF THE CITY OF TORONTO

NOTICE IS HEREBY GIVEN that, on behalf of The Corporation of the City of Toronto, application will be made to the Legislative Assembly of the Province of Ontario, for an Act to provide that that part of subsection 46 (1) of the Municipal Elections Act which makes it mandatory that all polling places required to be provided under that subsection allow easy access to persons who have a physical disability or a mobility impairment will *not* apply in the City of Toronto until November 1, 1994.

This application will be considered by a Standing Committee of the Legislative Assembly. Any person who has an interest in the application and who wishes to make submissions, for or against the application, to the Standing Committee should notify in writing the Clerk of the Legislative Assembly, Queen's Park, Toronto, Ontario M7A 1A2.

Dated at Toronto, this 10th day of January, 1991.

DENNIS Y. PERLIN  
City Solicitor  
City Hall  
Toronto, Ontario  
M5H 2N2

(1057) 3 to 6

#### THE CORPORATION OF THE CITY OF TORONTO

NOTICE IS HEREBY GIVEN that, on behalf of The Corporation of the City of Toronto, application will be made to the Legislative Assembly of the Province of Ontario, for an Act to permit Council to provide that, notwithstanding the Planning Act, members of a committee of adjustment appointed by Council under that Act, who are not members of Council, shall hold office for three years, but on the first appointments after the legislation comes into force, the Council shall designate members who shall hold office

- (a) until the 30th day of November of the year following the date of appointment;
- (b) until the 30th day of November of the second year following the date of appointment; and

- (c) until the 30th day of November of the third year following the date of appointment,

respectively, so that as nearly as possible one-third of the positions on the Committee shall be available for replacement.

This application will be considered by a Standing Committee of the Legislative Assembly. Any person who has an interest in the application and who wishes to make submissions, for or against the application, to the Standing Committee should notify in writing the Clerk of the Legislative Assembly, Queen's Park, Toronto, Ontario M7A 1A2.

Dated at Toronto, this 17th day of January, 1991.

DENNIS Y. PERLIN  
City Solicitor  
City Hall  
Toronto, Ontario  
M5H 2N2

(1120) 4 to 7

#### ASTAIR COMPUTER SERVICES LTD.

NOTICE IS HEREBY GIVEN that, on behalf of ASTAIR COMPUTER SERVICES Ltd. application will be made to the Legislative Assembly of the Province of Ontario for an Act to revive the above company.

The application will be considered by the Standing Committee on Regulations and Private Bills. Any person who has an interest in the application and who wishes to make submissions, for or against the application, to the Standing Committee on Regulations and Private Bills should notify, in writing, the Clerk of the Legislative Assembly, Queen's Park, Toronto, Ontario M7A 1A2.

Dated at St. Andrews, New Brunswick, this 4th day of January, 1991.

(1121) 4 to 7

ALISTAIR MCDUGALL

#### KOREAN-CANADIAN CULTURAL ASSOCIATION OF METROPOLITAN TORONTO

NOTICE IS HEREBY GIVEN that on behalf of the Korean-Canadian Cultural Association of Metropolitan Toronto, application will be made to the Legislative Assembly of the Province of Ontario at its next regular session commencing in 1991 for an Act to exempt the lands and premises owned by the said Korean-Canadian Cultural Association of Metropolitan Toronto and municipality, located at 20 Mobile Drive, in the City of North York, from municipal taxation, including school taxes.

The application will be considered by the Standing Committee on Regulations and Private Bills. Any person who has an interest in the application and who wishes to make submissions, for or against the application, to the Standing Committee on Regulations and Private Bills should notify, in writing, the Clerk of the Legislative Assembly, Queen's Park, Toronto, Ontario, M7A 1A2.

Dated this 6th day of February, 1991.

(1282) 6 to 9

BOB BAK  
Commissioner, External Affairs

### Corporation Notices Avis relatifs aux compagnies

#### DIREZIONE LAVORI OF CANADA LIMITED

NOTICE IS HEREBY GIVEN that Direzione Lavori of Canada Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 28th day of January, 1991.

(1232) 6

ROSA L. VILLA,  
Secretary.

**TREUHAND LIMITED**

NOTICE IS HEREBY GIVEN that Treuhand Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 28th day of January, 1991.

(1233) 6

ROSA L. VILLA,  
Secretary.

**626819 ONTARIO INC.**

NOTICE IS HEREBY GIVEN that 626819 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 28th day of January, 1991.

(1234) 6

ROSA L. VILLA,  
Secretary.

**C.R.E.C.  
(CANADIAN REAL ESTATE CORPORATION) LIMITED**

NOTICE IS HEREBY GIVEN that C.R.E.C. (Canadian Real Estate Corporation) Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 28th day of January, 1991.

(1235) 6

ROSA L. VILLA,  
Secretary.

**UNIROYAL MANAGEMENT LTD.**

NOTICE IS HEREBY GIVEN that Uniroyal Management Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Waterloo, this 16th day of January, 1991.

(1236) 6

JOHN BURKE KIERNAN,  
President.

**MARYKNOLL SERVICES INC.**

NOTICE IS HEREBY GIVEN that Maryknoll Services Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at London, this 25th day of January, 1991.

(1237) 6

MARY R. O'FLYNN,  
Secretary.

**ZOEIKON FILMS INC.**

NOTICE IS HEREBY GIVEN that Zoeikon Films Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 25th day of January, 1991.

(1238) 6

ANITA SEYMOUR,  
President.

**887089 ONTARIO INC.**

NOTICE IS HEREBY GIVEN that 887089 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 28th day of January, 1991.

(1239) 6

L.A. WARD,  
Secretary.

**833631 ONTARIO LIMITED**

NOTICE IS HEREBY GIVEN that 833631 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 17th day of December, 1990.

(1240) 6

N.W.R. BURBIDGE,  
Secretary.

**HOLMBERG AULD INC.**

NOTICE IS HEREBY GIVEN that Holmberg Auld Inc. has been wound up pursuant to an Order of the Ontario Court (General Division) made on Friday, January 11, 1991, pursuant to the *Ontario Business Corporations Act, 1982, ss. 206, 235*.

Dated at Toronto, this 28th day of January, 1991.

(1241) 6

FRANCES AULD,  
Director.

**McKERRACHER CONSULTING INC.**

NOTICE IS HEREBY GIVEN that McKerracher Consulting Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Halton Hills (Acton), this 15th day of January, 1991.

(1242) 6

ALVIN McKERRACHER,  
President.

**MUSKOKA SEAFOOD RESTAURANTS LIMITED**

NOTICE IS HEREBY GIVEN that Muskoka Seafood Restaurants Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 25th day of January, 1991.

(1243) 6

WILLIAM ARTHUR SLOAN,  
Secretary.

**ABLETEK DEVELOPMENT LIMITED**

NOTICE IS HEREBY GIVEN that Abletek Development Limited is dissolved, effective January 21st, 1991, by Order of the Honourable Doyle J., Ontario Court (General Division).

Dated this 24th day of January, 1991.

(1244) 6

HAROLD J. FEDER,  
Solicitor.

**CORNER SERVICE LTD.**

NOTICE IS HEREBY GIVEN that Corner Service Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 18th day of December, 1990.

(1245) 6

KENNETH J. SEARS,  
President.

**YOUR FRIENDLY JUG MILK STORE LIMITED**

NOTICE IS HEREBY GIVEN that Your Friendly Jug Milk Store Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at North Bay, this 23rd day of January, 1991.

(1246) 6

DOUGLAS S. HARRISON,  
President.

**551786 ONTARIO INC.**

NOTICE IS HEREBY GIVEN that 551786 Ontario Inc. intends to dissolve as of the close of business on the 31st day of December, 1990, by filing Articles of Dissolution with the Ministry of Consumer and Commercial Relations, pursuant to the *Business Corporations Act, 1982*.

Dated at Kitchener, this 7th day of December, 1990.

(1247) 6

C. KNECHTEL,  
President.

**ADVISORY ERGONOMIC SERVICES INC.**

NOTICE IS HEREBY GIVEN that Advisory Ergonomic Services Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Windsor, this 24th day of January, 1991.

(1248) 6

BRUCE MURDOCK BERRIMAN,  
President.

**REMCO MAINTENANCE CONSULTANTS LTD.**

NOTICE IS HEREBY GIVEN that Remco Maintenance Consultants Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 31st day of December, 1991.

(1249) 6 ORVILLE F. OSBORNE,  
Secretary.

**BROWN OPTICAL CO. LIMITED**

NOTICE IS HEREBY GIVEN that Brown Optical Co. Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Windsor, this 15th day of January, 1991.

(1250) 6 HENRY SHANFIELD,  
President.

**REG RIES PHARMACY LIMITED**

NOTICE IS HEREBY GIVEN that Reg Ries Pharmacy Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Markdale, this 24th day of January, 1991.

(1251) 6 VERA WINNIFRED RIES,  
Secretary.

**NEVOTONE MARKETING INC.**

NOTICE IS HEREBY GIVEN that Nevotone Marketing Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 28th day of January, 1991.

(1252) 6 ALVIN MIGOTTO,  
Vice President.

**887003 ONTARIO INC.**

NOTICE IS HEREBY GIVEN that 887003 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 22nd day of January, 1991.

(1253) 6 ROBERT LINTON,  
Director.

**McCONNELL INTERNATIONAL ASSET MANAGEMENT INC.**

NOTICE IS HEREBY GIVEN that McConnell International Asset Management Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 23rd day of January, 1991.

(1254) 6 EDWARD J. McCONNELL,  
President.

**SCOTTSDALE ROAD ACCESS INC.**

NOTICE IS HEREBY GIVEN that Scottsdale Road Access Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at North Bay, this 24th day of January, 1991.

(1255) 6 Secretary.

**ZINOR HOLDINGS LIMITED**

NOTICE IS HEREBY GIVEN that Zinor Holdings Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 10th day of January, 1991.

(1256) 6 JOHN SAGE,  
Secretary.

**PROLOGUE TO THE PERFORMING ARTS**

NOTICE IS HEREBY GIVEN that by special resolution passed by the directors of Prologue To The Performing Arts (the "Corporation") and confirmed by the members on June 25, 1969, the number of directors of the Corporation was increased from 10 to 14.

NOTICE IS HEREBY FURTHER GIVEN that by special resolution passed by the directors of the Corporation on October 15, 1990 and confirmed by the members on October 29, 1990, the number of directors of the Corporation was increased from 14 to 16.

Dated at Toronto, this 29th day of October, 1990.

(1257) 6 H. ALEC ZIMMERMAN,  
Director.

**ELMHURST HOTEL (NEWCASTLE) LIMITED**

NOTICE IS HEREBY GIVEN that Elmhurst Hotel (Newcastle) Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 28th day of January, 1991.

(1258) 6 BETTY SHADDOCK,  
President.

**FEIN-TAYLOR PRODUCTIONS INC.**

NOTICE IS HEREBY GIVEN that Fein-Taylor Productions Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 3rd day of January, 1991.

(1259) 6 MICHAEL J. TAYLOR,  
President.

**GENERAL CAPITAL GROWTH LIMITED**

NOTICE IS HEREBY GIVEN that General Capital Growth Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 24th day of January, 1991.

(1260) 6 ANNA RADAKOVIC,  
President.

**R.E. MARKHAM LIMITED**

NOTICE IS HEREBY GIVEN that R.E. Markham Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 30th day of June, 1990.

(1261) 6 HAZEL LOCKWOOD MARKHAM,  
Secretary.

**D. & D. HOBBY SHOPPE LIMITED**

NOTICE IS HEREBY GIVEN that D. & D. Hobby Shoppe Limited intends to dissolve by filing Articles of Dissolution pursuant to the *Business Corporations Act, 1982*.

Dated this 30th day of January, 1991.

(1262) 6 DESMARAI, KEENAN,  
Barrister and Solicitors.

**OWENCLARE HOLDINGS LIMITED**

NOTICE IS HEREBY GIVEN that Owenclare Holdings Limited — Account No. 1294105 intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Burlington, this 13th day of December, 1990.

(1263) 6 OWEN W. SMITH,  
President.

**OWEN W. SMITH CONSTRUCTION LIMITED**

NOTICE IS HEREBY GIVEN that Owen W. Smith Construction Limited — Account No. 1277856 intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Burlington, this 13th day of December, 1990.

(1264) 6

OWEN W. SMITH,  
President.

**BUBBINS INVESTMENTS INC.**

NOTICE IS HEREBY GIVEN that Bubbins Investments Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 24th day of January, 1991.

(1265) 6

A. MEADE WRIGHT,  
President.

**870766 ONTARIO LIMITED**

NOTICE IS HEREBY GIVEN that 870766 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 4th day of January, 1991.

(1266) 6

CHARLES ZWEBNER,  
President.

**PERFECT PROPERTY MANAGEMENT & SERVICES INC.**

NOTICE IS HEREBY GIVEN that Perfect Property Management & Services Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 25th day of January, 1991.

(1267) 6

MICHAEL WONG,  
Secretary.

**865711 ONTARIO INC.**

NOTICE IS HEREBY GIVEN that 865711 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 28th day of January, 1991.

(1268) 6

KEITH VAN BEEK,  
President.

**743749 ONTARIO INC.**

NOTICE IS HEREBY GIVEN that 743749 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 28th day of January, 1991.

(1269) 6

KEITH VAN BEEK,  
President.

**754265 ONTARIO INC.**

NOTICE IS HEREBY GIVEN that 754265 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 28th day of January, 1991.

(1270) 6

KEITH VAN BEEK,  
President.

**913364 ONTARIO LIMITED  
O/A BALLOONS BASKETS AND SO MUCH MORE**

NOTICE IS HEREBY GIVEN that, by the order of the shareholders of

913364 Ontario Limited (operating as Balloons Baskets and So Much More), Mr. Clifford J. Blundell is appointed as liquidator of the assets for the purpose of Winding-Up the business and affairs of said corporation, pursuant to the *Ontario Business Corporations Act, 1982*.

Dated this 25th day of January, 1991.

(1271) 6

CLIFFORD J. BLUNDELL, P.ENG.,  
Liquidator.

**STEEL CITY AUTO PARTS LIMITED**

NOTICE IS HEREBY GIVEN that Steel City Auto Parts Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Hamilton, this 18th day of January, 1991.

(1272) 6

DAVID E. WHATMOUGH,  
Bookkeeper.

**396079 ONTARIO LIMITED**

NOTICE IS HEREBY GIVEN that 396079 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Sudbury, this 30th day of November, 1990.

(1273) 6

RONALD WARWICK,  
Secretary-Treasurer.

**ST. CATHARINES GREEK ORTHODOX SCHOOL**

NOTICE IS HEREBY GIVEN that St. Catharines Greek Orthodox School intends to dissolve by filing Application for Surrender of Charter with the Ministry of Consumer and Commercial Relations pursuant to the *Business Corporations Act, 1985*.

Dated this 21st day of January, 1991.

(1274) 6

ARNO J. TOLONEN

**435119 ONTARIO LIMITED**

NOTICE IS HEREBY GIVEN that the shareholders of 435119 Ontario Limited have resolved to require the Corporation to be wound up voluntarily pursuant to section 192 of the *Business Corporations Act, 1982*.

Dated at Toronto, this 29th day of January, 1991.

(1275) 6

DAVID L. D. BEARD,  
President.

**AGAPRE MINISTRIES FOR WORLD-WIDE MISSIONS  
ONTARIO CORPORATION NO. 801146**

NOTICE IS HEREBY GIVEN that the location of the Head Office of Agapre Ministries for World-Wide Missions was changed from the Township of Georgina, Regional Municipality of York to Town of Bolton, Regional Municipality of Peel by a special resolution which was confirmed by the members of the corporation on the 4th day of January, 1991.

Dated this 4th day of January, 1991.

(1276) 6

BEVERLY PRESTAGE,  
Secretary.

**AGAPRE MINISTRIES FOR WORLD-WIDE MISSIONS  
ONTARIO CORPORATION NO. 801146**

NOTICE IS HEREBY GIVEN that the number of directors of Agapre Ministries for World-Wide Missions was increased from four to six by

a special resolution which was confirmed by the members of the corporation on the 4th day of January, 1991.

Dated this 4th day of January, 1991.

(1277) 6 BEVERLY PRESTAGE,  
Secretary.

#### 865771 ONTARIO LIMITED

NOTICE IS HEREBY GIVEN that 865771 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 25th day of January, 1991.

(1278) 6 MORTON G. GROSS,  
Director.

#### 526426 ONTARIO INC.

NOTICE IS HEREBY GIVEN that 526426 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 25th day of January, 1991.

(1279) 6

#### THE MUSLIM NON-PROFIT HOUSING CORPORATION OF OTTAWA-CARLETON

NOTICE IS HEREBY GIVEN that the number of directors of The Muslim Non-Profit Housing Corporation of Ottawa-Carleton was increased from 6 to 9 by special resolution which was confirmed by the members of the Corporation on the 30th day of November, 1990.

Dated at Ottawa, this 28th day of January, 1991.

(1280) 6 ABU NAZIR,  
Secretary.

#### OPEN SPACE ESTATES LIMITED

NOTICE IS HEREBY GIVEN that Open Space Estates Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 6th day of December, 1990.

(1281) 6 ANTONIO SCARANO,  
Secretary.

#### 605887 ONTARIO LIMITED

NOTICE IS HEREBY GIVEN that 605887 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Mississauga, this 25th day of September, 1990.

(1283) 6 Secretary.

#### GLENRON FOOD ENTERPRISES LIMITED

NOTICE IS HEREBY GIVEN that Glenron Food Enterprises Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Hamilton, this 29th day of January, 1991.

(1284) 6 GLEN M. SWIRE,  
Secretary.

#### 832456 ONTARIO LIMITED

NOTICE IS HEREBY GIVEN that 832456 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 20th day of December, 1990.

(1285) 6 STEPHANIE G. MACLEOD,  
Secretary.

#### LORSTAR CAPITAL CORP.

NOTICE IS HEREBY GIVEN that Lorstar Capital Corp. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Edmonton, Alberta, this 31st day of January, 1991.

(1286) 6 STANLEY A. MILNER,  
President.

#### 495604 ONTARIO LIMITED

NOTICE IS HEREBY GIVEN that 495604 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at North York, this 31st day of January, 1991.

(1287) 6 THERESA TOCZYSKI,  
Secretary.

#### ERRATUM

Vide Ontario Gazette Vol. 124-05, dated February 2nd, 1991, page 267 Notice re (1198) 5.

#### EXTEND-A-FAMILY WINDSOR-ESSEX COUNTY INC.

NOTICE IS HEREBY GIVEN that by special resolution which became effective on the 1st day of April 1990, the location of the registered office of Extend-A-Family Windsor-Essex County Inc., was changed from 3383 Walker Road, in the City of Windsor, County of Essex, to 3391 Walker Road, in the City of Windsor, County of Essex.

Dated this 15th day of January, 1991.

(1288) 6 SUSANNE KENNETH,  
Secretary.

### Miscellaneous Notices Avis divers

#### FIRST AMERICAN TITLE INSURANCE COMPANY

NOTICE IS HEREBY given that First American Title Insurance Company, a California corporation having its head office in Santa Ana, California, U.S.A., intends to apply to the Ontario Insurance Commission for a licence to transact the business of title insurance in Ontario under the name First American Title Insurance Company.

Dated at Mississauga, this 14th day of January, 1991.

First American Title Insurance Company  
by its solicitors  
Lang Michener Lawrence & Shaw  
1270 Central Parkway West  
Suite 600  
Mississauga, Ontario  
L5C 4P4

(1128) 4 to 6

#### SCOR VIE

NOTICE IS HEREBY GIVEN, in accordance with Section 29 of the *Insurance Act* of the intention of SCOR Vie, a subsidiary of Société Commerciale de Réassurance, having its head office in Puteaux, France, to make application to the Superintendent of Insurance for a licence to transact the business of insurance in Ontario, limited to reinsurance in the following classes: accident and sickness, and life insurance.

LANG MICHENER LAWRENCE & SHAW  
1 First Canadian Place  
Suite 800  
Toronto, Ontario  
M5X 1A2  
Solicitors to the Applicant

(1182) 5 to 7

**Sales of Lands for Tax Arrears  
by Public Tender  
Ventes de terrains par appel d'offres  
pour arriéré d'impôt**

MUNICIPAL TAX SALES ACT, 1984

**THE CORPORATION OF THE TOWNSHIP  
OF WILMOT**

TAKE NOTICE that tenders are invited for the purchase of the land(s) described below and will be received until 3:00 p.m. local time on February 20th, 1991 at Municipal Office, 121 Huron St., New Hamburg, Ontario.

The tenders will then be opened in public on the same day at Municipal Office, 121 Huron St. New Hamburg, Ontario.

Description of Land(s)	Minimum Tender Amount
Lot 17, Plan 627 Township of Wilmot Regional Municipality of Waterloo .....	\$6,704.92

Tenders must be submitted in the prescribed form and must be accompanied by a deposit in the form of a money order or of a bank draft or

cheque certified by a bank, trust company or Province of Ontario Savings Office payable to the municipality (or board) and representing at least 20 per cent of the tender amount.

The municipality makes no representation regarding the title to or any other matters relating to the land to be sold. Responsibility for ascertaining these matters rests with the potential purchasers.

This sale is governed by the *Municipal Tax Sales Act, 1984*, being chapter 48 of the Statutes of Ontario 1984 and the *Municipal Tax Sales Rules* made under that Act. The successful purchaser will be required to pay the amount tendered plus accumulated taxes and the relevant land transfer tax.

For further information regarding this sale and a copy of the prescribed form of tender contact:

Mrs. Diane Pearson  
Treasurer,  
Corporation of the Township  
of Wilmot  
121 Huron St.  
Box 599  
New Hamburg, Ontario. N0B 2G0

(1231) 6



# Publications under the Regulations Act

## Publications en vertu de la Loi sur les règlements

1991—02—09

**NURSING HOMES ACT****O. Reg. 8/91.**

General.

Made—January 21st, 1991.

Filed—January 21st, 1991.

**REGULATION TO AMEND  
REGULATION 690 OF REVISED REGULATIONS  
OF ONTARIO, 1980  
MADE UNDER THE  
NURSING HOMES ACT**

1. Item 42 of Table 1 of Regulation 690 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 570/90, is revoked and the following substituted:

42.	On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	\$740.02	\$24.33
43.	On or after the 1st day of February, 1991.	\$747.71	\$24.58

6/91

**HEALTH INSURANCE ACT****O. Reg. 9/91.**

General.

Made—January 21st, 1991.

Filed—January 21st, 1991.

**REGULATION TO AMEND  
REGULATION 452 OF REVISED REGULATIONS  
OF ONTARIO, 1980  
MADE UNDER THE  
HEALTH INSURANCE ACT**

1. Item 23 of Table 1B of Regulation 452 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 569/90, is revoked and the following substituted:

23.	On or after the 1st day of November, 1990, but before the 1st day of February, 1991. . . .	740.02	24.33	1,099.20	36.14	1,839.22	60.47
24.	On or after the 1st day of February, 1991. . . .	747.71	24.58	1,091.51	35.89	1,839.22	60.47

2. Items 7zo, 13zo, 19zo, 25zo, 31zo and 78 of Table 2 of the Regulation, as made by section 2 of Ontario Regulation 569/90, are revoked and the following substituted:

7zo.	On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	Person with no dependants — maximum estimated income \$840.02	Estimated income less \$100.00	Estimated income less \$100.00, divided by 30.4
7zp.	On or after the 1st day of February, 1991.	Person with no dependants — maximum estimated income \$847.71	Estimated income less \$100.00	Estimated income less \$100.00, divided by 30.4

13zo.	On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	Person with one dependant – maximum aggregate estimated incomes \$4,700.00	Aggregated estimated incomes less \$2,480.00, divided by 3	Aggregate estimated incomes less \$2,480.00, divided by 91.2
13zp.	On or after the 1st day of February, 1991.	Person with one dependant – maximum aggregate estimated incomes \$4,723.00	Aggregate estimated incomes less \$2,480.00, divided by 3	Aggregate estimated incomes less \$2,480.00, divided by 91.2
19zo.	On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	Person with two dependants – maximum aggregate estimated incomes \$5,055.00	Aggregate estimated incomes less \$2,835.00, divided by 3	Aggregate estimated incomes less \$2,835.00, divided by 91.2
19zp.	On or after the 1st day of February, 1991.	Person with two dependants – maximum aggregate estimated incomes \$5,078.00	Aggregate estimated incomes less \$2,835.00, divided by 3	Aggregate estimated incomes less \$2,835.00, divided by 91.2
25zo.	On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	Person with three dependants – maximum aggregate estimated incomes \$5,377.00	Aggregate estimated incomes less \$3,157.00, divided by 3	Aggregate estimated incomes less \$3,157.00, divided by 91.2
25zp.	On or after the 1st day of February, 1991.	Person with three dependants – maximum aggregate estimated incomes \$5,400.00	Aggregate estimated incomes less \$3,157.00, divided by 3	Aggregate estimated incomes less \$3,157.00, divided by 91.2
31zo.	On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	Person with four or more dependants – maximum aggregate estimated incomes \$5,666.00	Aggregate estimated incomes less \$3,446.00, divided by 3	Aggregate estimated incomes less \$3,446.00, divided by 91.2
31zp.	On or after the 1st day of February, 1991.	Person with four or more dependants – maximum aggregate estimated incomes \$5,689.00	Aggregate estimated incomes less \$3,446.00, divided by 3	Aggregate estimated incomes less \$3,446.00, divided by 91.2
78.	On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	Person not referred to in Items 1 – 31 zo	\$740.02	\$24.33
79.	On or after the 1st day of February, 1991.	Person not referred to in Items 1 – 31 zp	\$747.71	\$24.58

6/91

## CORRECTION

O. Reg. 680/90 under the *Family Benefits Act* published January 5th, 1991.

“\$839” which appeared in the sixth line of subsection 3 (1) of Ontario Regulation 680/90 should have read “\$838”.

6/91

## POWER CORPORATION ACT

## O. Reg. 10/91.

Electrical Safety Code.

Made—October 15th, 1990.

Approved—January 21st, 1991.

Filed—January 22nd, 1991.

# ONTARIO REGULATION 10/91

under the Power Corporation Act

## ELECTRICAL SAFETY CODE

### SECTION 0—INTERPRETATION

#### 0-002 In this Code:

1. "acceptable" means not presenting an undue hazard to persons or property under the circumstances;
2. "accessible" when applied to wiring methods means that the wiring is not permanently closed in by the structure or finish of a building and is capable of being removed without disturbing the building structure or finish;
3. "accessible" when applied to electrical equipment means that the equipment may be closely approached because it is not guarded by locked doors, elevation, or other effective means;
4. "adapter" means an electrical device designed to adapt one configuration of a receptacle to another;
5. "alive" or "live" means electrically connected to a source of potential difference, or electrically charged so as to have a potential different from that of the earth; and in this Code "current-carrying" has the same meaning where the intention is clear;
6. "aluminum-sheathed cable" means a cable consisting of one or more conductors of approved type assembled into a core and covered with a liquid- and gas-tight sheath of aluminum or aluminum alloy;
7. "ampacity" means current-carrying capacity of electric conductors expressed in amperes;
8. "approved" means authorized or approved in accordance with the Code;
9. "authorized person" means a qualified person who by the nature of his or her duties or occupation is obliged to approach or handle electrical equipment, or a person who, having been warned of the hazards involved, has been instructed or authorized to do so by someone having authority to give the instruction or authorization;
10. "auxiliary gutter" means a raceway consisting of a sheet metal enclosure used to supplement the wiring space of electrical equipment and to enclose interconnecting conductors;
11. "AWG" means the American (or Brown and Sharpe) wire gauge as applied to non-ferrous conductors and non-ferrous sheet metal;
12. "boat" means any ship or vessel, except a seaplane, used or designed to be used in navigation;
13. "bonding" means a low impedance path obtained by permanently joining all non-current-carrying metal parts to assure electrical continuity and having the capacity to conduct safely any current likely to be imposed on it;
14. "Bonding conductor" means a conductor that connects the non-current-carrying parts of electrical equipment, raceways or enclosures to the service equipment or the system grounding conductor;
15. "branch circuit" means that part of a circuit extending beyond the final overcurrent devices in the circuit;
16. "building" means a structure that stands alone or which is cut off from adjoining structures by unpierced fire-walls or by openings protected by approved fire-doors;
17. "bus" means a conductor which serves as a common connection for the corresponding conductors of two or more circuits;
18. "busway" means a raceway consisting of a system of metal troughing, including its elbows, tees, crosses and straight runs, containing conductors supported on insulators;
19. "cabinet" means an enclosure of adequate mechanical strength, composed entirely of noncombustible and absorption-resistant material, designed either for surface or flush mounting and provided with a frame, mat, or trim, in which swinging doors are hung;
20. "cable tray" means a raceway consisting of metal tray and fittings therefor, so formed and constructed that insulated conductors and cables may be readily installed or removed after the cable tray has been completely installed, without injury either to conductors or their covering, and,
  - (a) "ladder cable tray" means a cable tray with openings exceeding 50 millimetres in a longitudinal direction;

- (b) "non-ventilated cable tray" means a cable tray in which there are no ventilating openings in the bottom or sides;
- (c) "ventilated cable tray" means a cable tray having adequate ventilating openings with no opening exceeding 50 millimetres in a longitudinal direction;
- 21. "cell" means one of the hollow spaces, suitable for use as a raceway, of a cellular metal or cellular concrete floor, the axis of the cell being parallel to the longitudinal axis of the floor members;
- 22. "cellular floor" means an assembly of metal or concrete floor members containing cells;
- 23. "circuit-breaker" means an electro-mechanical device designed to automatically open a current-carrying circuit on a pre-determined over-current, under both overload and short-circuit conditions without injury to the device;
- 24. "combustible construction" as applied to a building means that type of construction in which the structural elements are constructed wholly or partly of wood members which do not meet the requirements for heavy timber (mill type) construction and may include noncombustible as well as combustible elements;
- 25. "communication circuit" means a circuit which is part of a communication system;
- 26. "communication system" means an electrical system whereby voice, sound or data may be received and/or transmitted, including telephone, telegraph, data communications, intercommunications, paging, wired music, community antenna distribution and other systems of similar nature, but does not include alarm systems such as fire, smoke or intrusion alarm systems or radio and television communication or closed circuit television equipment;
- 27. "concealed" means rendered permanently inaccessible by the structure or finish of a building;
- 28. "conductor" means a wire, cable or other form of metal installed for the purpose of conveying electric current from one piece of electrical equipment to another or to ground;
- 29. "conduit" means a raceway of circular cross-section into which it is intended that conductors be drawn and includes rigid conduit (metallic and non-metallic) and flexible conduit, and,
  - (a) "rigid conduit" means a rigid conduit of metallic or non-metallic material;
  - (b) "rigid RE conduit" means a rigid non-metallic conduit of fibreglass reinforced thermoset epoxy resin suitable for direct burial or encasement in concrete;
  - (c) "rigid HFT conduit" means a rigid non-metallic conduit of halogen-free plastic;
  - (d) "rigid metal conduit" means a rigid conduit of metallic material made the same dimensions as standard pipe and suitable for threading with standard pipe threads;
  - (e) "rigid non-metallic conduit" means a rigid conduit of non-metallic material that is not permitted to be threaded;
  - (f) "rigid PVC conduit" means a rigid non-metallic conduit of unplasticized polyvinyl chloride;
  - (g) "rigid Type DB2/ES2 PVC conduit" means a rigid non-metallic conduit of PVC for direct burial or encasement in concrete or masonry;
  - (h) "rigid Type EB1 PVC conduit" means a rigid non-metallic conduit of PVC for encasement in concrete or masonry;
  - (i) "rigid Type I non-metallic conduit" means a rigid non-metallic conduit of bituminized fibre or asbestos cement requiring encasement in concrete;
  - (j) "rigid Type II non-metallic conduit" means a rigid non-metallic conduit of bituminized fibre or asbestos cement of heavier construction than Type I and therefore not requiring encasement in concrete;
  - (k) "Flexible metal conduit" means a metal conduit which may be easily bent without the use of tools;
  - (l) "Liquid-tight flexible conduit" means:
    - (i) A flexible metal conduit having an outer liquid-tight jacket; or
    - (ii) A flexible liquid-tight nonmetallic conduit;
- 30. "connection authorization" means written permission by the inspection department to a supply authority, or any other person or corporation, to supply electric energy to a particular electrical installation;
- 31. "connector",
  - (a) "box connector" means a device for securing a cable, via its sheath or armour,

where it enters an enclosure such as an outlet box;

- (b) "wire connector" means a device which connects two or more conductors together or one or more conductors to a terminal point for the purpose of connecting electrical circuits;
32. "contractor" means any person who as principal, servant or agent, by himself or herself or by associates, employees, servants or agents performs or engages to perform either for his or her own use and benefit or for that of another and for or without remuneration or gain any work with respect to any electrical installation or any other work to which this Code applies;
33. "control circuit" means the circuit that carries the electric signals directing the performance of a control device, but does not carry the power that the device controls;
34. "controller" means a device or a group of devices for controlling in some predetermined manner the electric power delivered to the apparatus to which it is connected;
35. "cord set" means a length of flexible cord or power supply cable with an attachment plug connected to one end of it and a cord connector connected to its other end;
36. "cutout box" means an enclosure of adequate mechanical strength, composed entirely of noncombustible and absorption-resistant material, designed for surface mounting and having swinging doors or covers secured directly to, and telescoping with, the walls of the box proper;
37. "dead" when applied to electrical equipment means that the current-carrying electrical equipment is free from any electrical connection to a source of potential difference and from electrical charge or has not a potential different from that of earth;
38. "dead front" when applied to electrical equipment means that the electrical equipment is so constructed that all live parts, except the wells for plug fuses in panelboards and in enclosed branch-circuit cut-outs, are enclosed in such manner as to be inaccessible;
39. "different systems" means systems which derive their energy from different transformers or from different banks of transformers or from different generators or other sources;
40. "disconnecting means" means a device, group of devices, or other means whereby the conductors of a circuit can be disconnected from their source of supply;
41. "dust-tight" means an enclosure constructed so that dust cannot enter it;
42. "duty" means a requirement of service that specifies the degree of regularity of the load; and,
- (a) "continuous duty" means a requirement of service that demands operation at a substantially constant load for an indefinitely long time;
- (b) "short time duty" means a requirement of service that demands operation at a substantially constant load for a short and definitely specified time;
- (c) "intermittent duty" means a requirement of service that demands operation for definitely specified alternate intervals of,
- (i) load and no load,
- (ii) load and rest, or
- (iii) load, no load and rest;
- (d) "periodic duty" means a type of intermittent duty in which the load conditions are regularly recurrent;
- (e) "varying duty" means a requirement of service that demands operation at loads and for intervals of time, both of which may be subject to wide variation;
43. "dwelling unit" means one or more rooms for the use of one or more persons as a housekeeping unit with cooking, eating, living, and sleeping facilities;
44. "electric elevator" means an elevator in which the motion of the car or platform is obtained through an electric motor applied directly to the elevator machinery;
45. "electrical equipment" means any apparatus, appliance, device, instrument, fitting, fixture, machinery, material or thing used in or for, or capable of being used in or for, the generation, transformation, transmission, distribution, supply, or utilization of electric power or energy, and without restricting the generality of the foregoing, includes any assemblage or combination of materials or things which is used, or is capable of being used, or adapted to serve or perform any particular purpose or function when connected to an electrical installation, notwithstanding that any of such materials or things are mechanical, metallic or non-metallic in origin;
46. "electrical installation" means a system or part of a system of wiring installed or to be installed in or upon any land, building or premises from the point or points of delivery of electrical power or energy therein or thereon, up to the point or points where the power or energy can be

- consumed or used therein or thereon by any electrical equipment, and the expressions "work on an electrical installation" or "make an electrical installation" include the installation, maintenance, alteration, extension and repair of the wiring and the connection of the wiring with any of the electrical equipment or with any other part of the wiring system;
47. "electrical metallic tubing" means a metal raceway into which it is intended that conductors shall be drawn, and which has a circular cross-section, a wall thinner than that of rigid metal conduit and an outside diameter sufficiently different from that of rigid conduit to render it impracticable for threading it with standard pipe-thread;
  48. "electrical non-metallic tubing" means a pliable non-metallic corrugated raceway having a circular cross-section;
  49. "electrical room" means a room that is intended for the exclusive installation of electrical equipment;
  50. "elevator" means a hoisting and lowering mechanism equipped with a car or platform which moves in guides in a substantially vertical direction but not including tiering-machines or piling-machines which operate within one storey, or endless belts, conveyors, chains, buckets or similar devices used for the purpose of elevating materials;
  51. "elevator machinery" means the machinery and its equipment used in raising and lowering the elevator car or platform;
  52. "emergency and exit lights" means all lights required by law for the purpose of facilitating safe exit in case of fire or other emergency;
  53. "explosion proof" means enclosed in a case that is capable of withstanding without damage an explosion that may occur within it of a specified gas or vapour and which is also capable of preventing the ignition of a specified gas or vapour surrounding the enclosure from sparks, flashes or explosion of the specified gas or vapour within the enclosure;
  54. "exposed" as applied to live parts means that a live part can be inadvertently touched or approached more closely than is safe by any person and the term is applied to parts not suitably guarded, isolated or insulated;
  55. "exposed" as applied to wiring methods means not concealed;
  56. "extra-low-voltage power circuit" means a circuit, such as valve operator and similar circuits, which is neither a remote control circuit nor a signal circuit, but which operates at not more than 30 volts and which is supplied from a transformer or other device restricted in its rated output to 1,000 volt-amperes and approved for the purpose, but in which the current is not limited in accordance with the requirements for a Class 2 circuit;
  57. "feeder" means a conductor or group of conductors which transmits electrical energy from a service supply, transformer, switchboard, distribution centre, generator or other source of supply to branch-circuit overcurrent devices;
  58. "fire resisting" as applied to buildings means constructed of masonry, reinforced concrete or equivalent materials in accordance with the requirements of the fire underwriters;
  59. "flammable" means capable of being easily set on fire;
  60. "flexible tubing" means flexible non-metallic tubing commonly known as loom for the mechanical protection of insulated wires;
  61. "ground" means a connection to earth of electrical equipment by means of a grounding electrode;
  62. "ground fault circuit interrupter" means a device which will interrupt, within a predetermined time, the electrical circuit to the load when a current to ground exceeds some predetermined value that is less than that required to operate the overcurrent protective device of the supply circuit;
  63. "grounding" means a permanent and continuous conductive path to the earth with sufficient ampacity to carry any fault current liable to be imposed on it, and of a sufficiently low impedance to limit the voltage rise above ground and to facilitate the operation of the protective devices in the circuit;
  64. "grounding conductor" means the conductor used to connect the service equipment or system to the grounding electrode;
  65. "grounding electrode" means,
    - (a) a metallic water piping system; or
    - (b) a metal object or device, buried in, or driven into, the earth so as to make intimate contact therewith, to which a grounding conductor is electrically and mechanically connected;
  66. "grounded" means connected effectually with the general mass of the earth through a grounding path of sufficiently low impedance and having current-carrying capacity sufficient at all times, under the most severe conditions which are likely to arise in prac-

tice, to prevent any current in the grounding conductor from causing a harmful voltage to exist:

(a) between the grounding conductors and neighboring exposed conducting surfaces which are in good contact with the earth; or

(b) between the grounding conductors and neighboring surfaces of the earth itself;

67. "grounding system" means all conductors, clamps, ground clips, ground plates or pipes, and ground electrodes by means of which electrical equipment or an electrical installation is grounded;

68. "guarded" when applied to electrical equipment means that the electrical equipment is so covered, shielded, fenced, enclosed or otherwise protected by means of suitable covers, casings, barriers, rails, screens, mats or platforms as to remove the likelihood of dangerous contact or approach by persons or objects;

69. "header" means a transverse raceway for electrical conductors providing access to predetermined cells of a cellular metal or concrete floor permitting the installation of conductors from a distribution centre to the cells;

70. "hoistway" means a shaftway, hatchway, well hole or other vertical opening or space in which an elevator, escalator or dumb-waiter operates or is intended to operate;

71. "identified",

(a) when applied to a conductor means that the conductor has,

(i) a white or natural grey covering; or

(ii) a raised longitudinal ridge or ridges on the surface of the extruded covering on certain flexible cords,

either of which indicates that the conductor is either a grounded conductor or a neutral, and,

(b) when applied to other electrical equipment means that the terminals to which grounded or neutral conductors are to be connected have been distinguished for identification by being tinned, nickel plated or otherwise suitably marked;

72. "inaccessible" when applied to a room or compartment means that the room or compartment is sufficiently remote from access or so placed or guarded that unauthorized persons cannot inadvertently enter the room or compartment, and when applied to electrical equipment means that the electrical equipment is covered by the structure or finish of

the building in which it is installed or maintained or is sufficiently remote from access or so placed or guarded that unauthorized persons cannot inadvertently touch or interfere with the equipment;

73. "industrial establishment" means a building or part of a building in which any manufacturing process, assembling or handling of materials in connection with the manufacturing, preparing, treating or finishing of any goods or products, is carried on;

74. "inspection department" means Ontario Hydro;

75. "inspector" means any person duly appointed by the inspection department for the purpose of enforcing this Code;

76. "insulated" means separated from other conducting surfaces by a dielectric material or air space having a degree of resistance to the passage of current and to disruptive discharge sufficiently high for the condition of use;

77. "insulating" as applied to non-conducting substances means that they are capable of bringing about the condition defined as insulated;

78. "intrinsically safe", as applied to electrical equipment or electrical installation, means that any spark or thermal effect that may occur in normal use, or under any conditions of fault likely to occur in practice, is incapable of causing an ignition of the flammable gas, vapour, or dust which may be present;

79. "lampholder" means a device constructed for the mechanical support of lamps and for connecting them to circuit conductors;

80. "lighting fixture raceway" means a raceway which may or may not be a part of a lighting fixture and which is designed to support or suspend the lighting fixture or to hold conductors supplying power to the lighting fixture;

81. "location",

(a) "ordinary location" means a dry location in which at normal atmospheric pressure and under normal conditions of use, electrical equipment is not unduly exposed to injury from mechanical causes, excessive dust, moisture or extreme temperatures, and in which electrical equipment is entirely free from the possibility of injury through corrosive, flammable or explosive atmospheres;

(b) "damp location" means a location which is normally or periodically subject to

- condensation of moisture in, on or adjacent to electrical equipment;
- (c) "dry location" means a location where electrical equipment is installed that is not normally or periodically a damp location but may be a location subject to temporary dampness in the case of a building under construction, provided ventilation is adequate to prevent an accumulation of moisture;
- (d) "wet location" means a location in which liquids may drip, splash or flow on or against electrical equipment;
- (e) "hazardous location" means premises, buildings or parts thereof in which there exists the hazard of fire or explosion because,
- (i) highly flammable gases, flammable volatile liquids, mixtures or other highly flammable substances are manufactured or used or are stored in other than original containers,
  - (ii) combustible dust or flyings are likely to be present in quantities sufficient to produce an explosive or combustible mixture, or where it is impracticable to prevent such dust or flyings from being deposited upon incandescent lamps or from collecting in or upon motors or other electrical equipment in such quantities as to produce overheating by reason of the prevention of normal radiation,
  - (iii) easily ignitable fibres or materials producing combustible flyings are manufactured, handled or used in a free open state, or
  - (iv) easily ignitable fibres or materials producing combustible flyings are stored in bales or containers but are not manufactured, handled or used in a free open state;
82. "low-energy power circuit" means a circuit other than a remote control or signal circuit for which the power supply is limited in accordance with the requirements for Class 2 remote control circuits;
83. "low-voltage protection" means the effect of a device operative on the reduction or failure of voltage to cause and maintain the interruption of power to the main circuit;
84. "low-voltage release" means the effect of a device operative on the reduction or failure of voltage to cause the interruption of power to the main circuit, but not to prevent its re-establishment on the return of voltage to safe operating value;
85. "machine tool, metal cutting" means a power driven device, not portable by hand, used for the purpose of removing metal in the form of chips;
86. "machine tool, metal forming" means a power driven machine not portable by hand, used to press, forge, emboss, hammer, blank or shear metals;
87. "mineral-insulated cable" means a cable having one or more bare solid conductors supported and insulated by a highly compressed refractory material enclosed in a liquid-tight and gas-tight metallic tube sheathing and the term includes both the regular type (MI) and the light-weight type (LWMI) unless otherwise qualified;
88. "mobile home" means a portable dwelling constructed to be towed on its own chassis, designed for use without a permanent foundation on a temporary or permanent basis and which has provision for connection to a supply service;
89. "mobile industrial or commercial structure" means a portable structure other than a mobile home constructed to be towed on its own chassis, designed for use without a permanent foundation on a temporary or permanent basis and which has provision for connection to a supply service;
90. "MSG" means the Manufacturer's Standard Gauge for uncoated steel;
91. "multi-outlet assembly" means a surface or flush enclosure carrying conductors for extending one 2-wire or multi-wire branch circuit to two or more receptacles of the grounding type that are attached to the enclosure;
92. "multiple section mobile unit" means a structure formed by the mechanical and electrical coupling together of two or more mobile units;
93. "multi-winding motor" means a motor having multiple windings or tapped windings, or both, designed for connection or reconnection in more than one configuration to operate at speeds and voltages respective to the configurations;
94. "multi-wire branch circuit" means a branch circuit consisting of two or more ungrounded conductors having a voltage difference between them, and an identified grounded conductor having equal voltage between it and each ungrounded conductor with the identified grounded conductor connected to the neutral conductor;
95. "neutral conductor" means that conductor of a polyphase circuit, or of a single-phase, 3-wire circuit having an approximately

uniform potential difference and an equal spacing in phase with each of the other conductors;

96. "noncombustible construction" means that type of construction in which a degree of fire safety is attained by the use of non-combustible materials for structural members and other building assemblies;
97. "non-incendive circuit" means a circuit in which any spark or thermal effect that may occur under normal operating conditions or due to opening, shorting or grounding of field wiring, is incapable of causing an ignition of the prescribed flammable gas or vapour;
98. "non-relocatable structure" means a factory-built unit intended for use on permanent foundations;
99. "open" as applied to electrical equipment means that moving parts, windings or live parts are exposed to accidental contact;
100. "outlet" means a point in the electrical installation at which current is taken to supply utilization equipment;
101. "out-of-reach" means that equipment is located more than 1.5 metres horizontally or more than 2.5 metres vertically from any floor, platform or other surface from which it would otherwise be readily accessible;
102. "outline lighting" means an arrangement of incandescent lamps or electric discharge tubing, outlining or accentuating certain features of buildings;
103. "overcurrent device" means any device capable of automatically opening an electric circuit both under predetermined overload and short-circuit conditions, either by fusing of metal or by electro-mechanical means;
104. "overload-device" means a device affording protection from excess current but not necessarily short-circuit protection, and capable of automatically opening an electric circuit either by the fusing of metal or by electro-mechanical means;
105. "panelboard",
  - (a) "panelboard" means an assembly of buses and connections, overcurrent devices and control apparatus, with or without switches, or other equipment, constructed for installation as a complete unit in a cabinet; and
  - (b) "enclosed panelboard" means an assembly of buses and connections, overcurrent devices and control apparatus, with or
- without switches, or other equipment, installed in a cabinet;
106. "part-winding start motor" means a motor the starting of which entails the energizing of part of its primary winding as a first step and the energizing of the remainder of this winding as the next step or steps;
107. "plenum" means a chamber associated with air-handling apparatus, for distributing the processed air from the apparatus (supply plenum) to the supply ducts or for receiving air to be processed by the apparatus (return plenum);
108. "portable ground fault circuit interrupter" means a ground fault circuit interrupter that is either of the direct plug-in type or specifically designed to receive current by means of a flexible cord or cable and an attachment plug and which incorporates one or more receptacles for the connection of equipment which is provided with a flexible cord or cable and an attachment plug;
109. "portable" as applied to electrical equipment means the equipment is specifically designed not to be used in a fixed position and receives current through the medium of a flexible cord or cable, and usually an attachment plug;
110. "power supply cord" means a length of flexible cord or power supply cable with an attachment plug at one end;
111. "protected" as applied to electrical equipment means the equipment is constructed so that the electrical parts are protected against damage from foreign objects;
112. "qualified person" means a person familiar with the construction and operation of the apparatus and the hazards involved;
113. "raceway" means any channel for holding wires, cables or bus bars, which is designed expressly for and used solely for this purpose, and unless otherwise qualified in this Code, including rigid, flexible, metallic and non-metallic conduit, electrical metallic tubing, underfloor raceways, lighting fixture raceways, cellular floor raceways, surface raceways, wire-ways, cable trays, busways and auxiliary gutters;
114. "readily accessible" means capable of being reached quickly without climbing over or removing obstacles or resorting to portable ladders, chairs or similar aids;
115. "receptacle" means one or more female contact devices, on the same yoke, installed at an outlet for the connection of one or more attachment plugs, and,

- (a) "single receptacle" means one female contact device, with no other contact device on the same yoke, installed at an outlet for the connection of one attachment plug;
  - (b) "duplex receptacle" means two female contact devices, on the same yoke, installed at an outlet for the connection of two attachment plugs;
  - (c) "split receptacle" means a duplex receptacle having terminals adapted for connection to a grounded, three-wire supply, such as 120/240 volts or 120/208 volts;
116. "recreational vehicle" means a portable structure other than a mobile home intended as temporary living accommodation, including structures commonly referred to as travel trailers, motorized homes, slide-in campers, chassis-mounted campers, park model recreational vehicles and trailers, having a horizontal area of 48 square metres or less when measured at the largest horizontal projections;
117. "relocatable structure" means any factory-built building or structure intended for use without a permanent foundation;
118. "remote control circuit" means any electrical circuit which controls any other circuit through a relay or an equivalent device;
119. "repellent" used as a suffix (such as moisture-repellent) means constructed, treated or surfaced so that liquid will tend to run off, and cannot readily penetrate the surface;
120. "residential occupancy" means the occupancy or use of a building or part thereof by persons for whom sleeping accommodation is provided but who are not harboured or detained to receive medical care or treatment or are not involuntarily detained.
121. "resistant" used as a suffix means constructed, protected or treated so that it will not be injured readily when subjected to the specified material or condition;
122. "separate built-in cooking unit" means a stationary cooking appliance, including its integral supply leads or terminals, and consisting of one or more surface elements or ovens, or a combination of these, constructed so that the unit is permanently built into a counter or wall;
123. "service",
- (a) "consumer's service" means all that portion of the consumer's installation from the service box or its equivalent up to and including the point at which the supply authority makes connection;
  - (b) "supply service" means any one set of conductors run by a supply authority from its mains to a consumer's service;
  - (c) "service agreement" means a form of agreement prescribed or approved by the inspection department and pertaining to the labelling or re-examination of approved electrical equipment;
  - (d) "service box" means an approved assembly consisting of a metal box or cabinet constructed so that it may be effectually locked or sealed, containing either service fuses and a service switch or a circuit breaker and of such design that either the switch or circuit breaker may be manually operated when the box is closed;
124. "service room" means a room or space provided in a building to accommodate building service equipment and constructed in accordance with the Ontario Building Code;
125. "shock-proof" as applied to X-ray and high-frequency equipment, means that the equipment is guarded with grounded metal so that no person can come into contact with any live part;
126. "signal circuit" means any electrical circuit, other than a communication circuit, which supplies energy to a device that gives a recognizable signal, such as circuits for doorbells, buzzers, code-calling systems, signal lights and similar devices;
127. "single dwelling" means a dwelling unit that consists of a detached house, one unit of row housing or one unit of a semi-detached, duplex, triplex or quadruplex house;
128. "slow-burning" as applied to conductor insulation means the insulation has flame-retardant properties;
129. "soldered" means a uniting of metallic surfaces by the fusion thereon of a metallic alloy, usually of lead and tin;
131. "splitter" means an enclosure containing terminal plates or bus bars having main and branch connectors;
132. "starter" means an electric controller for accelerating a motor from rest to normal speed, for stopping the motor and usually implies inclusion of overload protection;
133. "Supply Authority" means any municipal corporation, commission, company or person

supplying electrical power or energy intended for sale or distribution to the public;

134. "surface raceway" means a raceway in the form of a channel with a backing and capping for loosely holding conductors and cables in surface wiring;
135. "switch" means a device for making, breaking or changing connection in a circuit; and
  - (a) "general use switch" means a switch intended for use in general distribution and branch-circuits and which is rated in amperes and capable of interrupting its rated current at rated voltage;
  - (b) "indicating switch" means a switch designed or marked to show readily whether the switch is in an "On" or "Off" position;
  - (c) "isolating switch" means a switch intended for isolating a circuit or electrical equipment from the source of supply of electrical power or energy, but does not include a switch intended for establishing or interrupting the flow of current in a circuit;
  - (d) "motor-circuit switch" means a fused or unfused manually-operated knife or snap switch rated in horsepower;
136. "switchboard" means a panel or assembly of panels on which is mounted any combination of switching, measuring, controlling and protective devices, buses and connections designed with a view to successfully carrying and rupturing the maximum fault current encountered when controlling incoming and outgoing feeders;
137. "theatre" means a building, or any portion thereof, which is used for public dramatic, operatic, motion-picture or other performances;
138. "thermal cut out" means a device affording protection from excessive current but not necessarily short-circuit protection, and containing a heating element in addition to, and affecting, a fusible member which opens the circuit;
139. "underfloor raceway" means a raceway suitable for use in the floor;
140. "utilization equipment" means equipment that utilizes electrical energy for mechanical, chemical, heating, lighting or a similar useful purpose;
141. "vault" means a transformer vault, or an electrical equipment vault consisting of an isolated enclosure, either above or below ground, with fire-resisting walls, ceilings and floors for the purpose of housing transformers and other electrical equipment;
142. "V amperes" with respect to an electric circuit means the mathematical product of the voltage and amperage carried thereby;
143. "voltage of a circuit" means the greatest root mean square (effective) voltage between any two conductors of the circuit concerned;
144. "voltage to ground" means the voltage between any live ungrounded part and any grounded part in the case of grounded circuits, or the greatest voltage existing in the circuit in the case of ungrounded circuits, and,
  - (a) "voltage, extra low" means any voltage up to and including 30 volts;
  - (b) "voltage, low" means any voltage from 31 to 750 volts inclusive;
  - (c) "voltage, high" means any voltage above 750 volts;
145. "wireway" means a raceway consisting of a completely enclosed system of metal troughing, and fittings therefor, so formed and constructed that insulated conductors may be readily drawn in and withdrawn, or laid in and removed, after the system has been completely installed without injury either to conductors or their covering.

## SECTION 2—ADMINISTRATION GENERAL RULES

### General

**2-000 Scope.** This Code does not apply to:

- (1) electrical equipment and electrical installations used exclusively in the generation, transformation or transmission of electrical power or energy intended for sale or distribution to the public;
- (2) electrical equipment and electrical installations in communication systems from the transformer or other current limiting device used at the junction of the communication system with the electric circuit supplying the communication system;
- (3) electrical equipment and electrical installations in the cars, car-houses, passenger stations or freight stations used in the operation of an electric railway or electric street railway and supplied with electric current from the railway power-circuit;

- (4) electrical equipment and electrical installations in railway locomotives and railway cars and in signalling systems, communication systems, wayside train monitoring systems and track facilities including the branch circuit supplying such electrical equipment or electrical installations when such electrical equipment or electrical installation is used in the operation of a railway;
- (5) electrical equipment and electrical installations on an aircraft;
- (6) electrical equipment and electrical installations in a mine as defined in *The Mining Act* excepting any dwelling house or other building not connected with or required for mining operations or purposes or used for the treatment of ore or mineral;
- (7) electrical equipment and electrical installations on a boat of non-Canadian registry or on a boat that is required to be certified in accordance with the *Canada Shipping Act* except for such equipment and installations required to connect the electrical supply from the on shore electrical supply facility to the service box on the boat and including the service box.

**2-002 Special Requirements.** Sections devoted to rules governing particular types of installations are not intended to embody all rules governing these particular types of installations, but cover only those special rules which are additional to or amendatory of those prescribed in other sections covering installations under ordinary conditions.

#### **2-004 Inspection**

(1) A contractor shall file with the inspection department a completed application for inspection of any work on an electrical installation:

- (a) Before or within 48 hours after commencement of the work whether or not electrical power or energy has been previously supplied to the land, building or premises on which the work was performed; and
- (b) Shall pay the fees prescribed by the inspection department.

(2) An application for inspection which has been refused in accordance with the provisions of Rule 2-008 shall, for purposes of Subrule (1) hereof, be deemed not to be a completed application.

(3) Subject to the provisions of Rule 2-008, payment of the fees prescribed by the inspection department entitles the contractor to one complete inspection of the installation.

(4) Every contractor who undertakes an electrical installation is responsible for procuring its inspection by the inspection department before the installation is used for any purpose.

(5) The contractor shall give to the inspection department at least forty-eight hours' notice in writing that the work on the electrical installation has been completed and that the installation is ready for inspection, but where the work is being performed in a remote district or is not immediately accessible for any other reason, the notice shall be of such greater length as is necessary to accommodate the inspection schedule of the inspection department.

(6) The inspection shall be made at such time and in such manner as the inspection department determines.

(7) No electrical installation shall be concealed or rendered inaccessible, until it has been inspected by an inspector and found to conform to this Code.

#### **2-006 Annual Inspection**

(1) An annual application for inspection may be made by the owner or occupant of any manufacturing, mercantile or other building where electrical installation work of a routine nature in connection with the maintenance or operation of the building or the plant therein is required to be performed at frequent intervals.

(2) Acceptance of the application by the inspection department shall authorize the commencement and carrying out of such work during the year for which the acceptance is issued and Rule 2-004 does not apply.

(3) The owner or occupant shall, as the work is performed, record it on a form provided by the inspection department which shall be produced to any inspector at any time and from time to time upon request and the inspection shall be made at such time and in such manner as the inspection department determines.

**2-008 Right of Refusal.** The inspection department may refuse an application for inspection to any person who has failed to pay any fees or dues owing to the inspection department for a period of more than thirty days or who has failed to remedy defects in any electrical work or installation after having been notified by the inspection department that the defects exist, until the fees have been paid or the defects have been remedied.

**2-010 Plans and Specifications.** No contractor shall commence work on any electrical installation consisting of:

- (a) The installation of a wiring system in any public building, commercial or industrial establishment, apartment house or other building in which the public safety may be involved; or
- (b) The installation of generators, transformers, switchboards, large storage batteries and similar equipment,

or that is of special magnitude or nature without first filing with the inspection department in duplicate, or in greater number if required, complete wiring plans and specifications relating to the proposed work and

obtaining the written approval of the inspection department therefor.

### **2-012 Connection Authorization**

(1) Where any electrical installation or part thereof to which electric power or energy has not previously been supplied is made in or upon any land, building or premises or subject to Subrule (2) hereof, where any electrical installation or part thereof has been disconnected or cut off from any service or other source of supply under this Code, no supply authority, contractor or other person shall connect or re-connect the installation or part thereof to any service or other source of supply unless:

- (a) The installation and all work in respect thereof have been inspected by an inspector; and
- (b) A connection authorization has been issued by the inspection department in respect of the installation.

(2) Where any electrical installation or part thereof has been disconnected or cut off from a source of supply by a supply authority for six months or less for non-payment of rates or because of a change of occupancy of premises, the supply authority may reconnect the installation or part thereof without obtaining a connection authorization.

### **2-014 Temporary Connection Authorization**

(1) Notwithstanding the provisions of Rule 2-012, the inspection department may issue a temporary connection authorization authorizing a supply authority to connect its lines for a stated length of time to a temporary electrical installation or to a permanent but unfinished electrical installation and may renew the connection authorization from time to time.

(2) Issuance of a temporary connection authorization does not obligate the inspection department to issue a permanent connection authorization where a contractor has not complied with this Code.

**2-016 Re-inspection.** The inspection department may at any time re-inspect any electrical installation notwithstanding any previous inspection and acceptance of the installation.

### **2-018 Defects**

(1) Every contractor who has performed work on an electrical installation and has been notified by the inspection department that the installation does not conform to this Code shall remedy all defects in work and replace all electrical equipment that is not approved within such time and in such manner as the notice from the inspection department directs.

(2) The inspection department may by notice in writing require any owner or occupant of land, buildings or premises, upon or within which is found an

electrical installation in which a condition dangerous to persons or property has developed, to make such changes in the electrical installation as are necessary to remedy the condition.

(3) Upon receipt of the notice referred to in Subrule (2) hereof, the owner or occupant of the lands, buildings or premises shall cause the installation to be changed in the manner and to the extent prescribed by the notice within the time limited therein.

(4) Where a contractor refuses or neglects to comply with a notice given under Subrule (1) hereof, or the owner or occupant of lands, buildings or premises refuses or neglects to comply with a notice given under Subrule (2) hereof, the inspection department, may disconnect the supply, or require the supply authority to disconnect the supply of electrical power or energy to the lands, buildings or premises in which is contained the electrical installation that was the subject of the notice.

(5) If the supply has been disconnected pursuant to Subrule (4) hereof, it shall not be reconnected until full compliance with the notice has been made.

### **2-020 Approval of Electrical Wiring in Mobile Homes, Mobile Industrial or Commercial Structures, Recreational Vehicles or any manufactured or prefabricated dwelling unit.**

(1) No person shall advertise, display or offer for sale or other disposal, or sell or otherwise dispose of a Mobile Home, Mobile Industrial or Commercial Structure, Recreational Vehicle or any manufactured or prefabricated dwelling unit unless the system of electrical wiring installed therein or thereon has been approved.

(2) The system of electrical wiring referred to in Subrule (1) shall be deemed to be approved when:

- (a) A certification report has been issued by Canadian Standards Association in respect thereof;
- (b) The certification report has been adopted by the inspection department;
- (c) The manufacturer of the unit in which the system of electrical wiring is installed has entered into a service agreement with Canadian Standards Association;
- (d) The system of electrical wiring and installation thereof meet all standards of design and construction prescribed by the certification report and complies with all terms and conditions therein; and
- (e) The Canadian Standards Association certification mark is affixed to the unit.

(3) As an alternative to the requirements of Subrule (2) hereof the system of electrical wiring installed in a

recreational vehicle equipped with permanently installed appliances within the meaning of the *Energy Act*, R.S.O. 1980, Chapter 139, shall be deemed to be approved when:

- (a) A certification report has been issued by the Canadian Gas Association in respect thereof;
- (b) The certification report has been adopted by the inspection department;
- (c) The system of electrical wiring meets all the applicable standards prescribed by the certification report and Canadian Standards Association specifications relating thereto and complies with all terms and conditions in the report and the specifications;
- (d) The certification mark of the Canadian Gas Association is affixed permanently to the system of electrical wiring verifying compliance with Canadian Standards Association standards; and
- (e) The manufacturer of the recreational vehicle has entered into a service agreement with the Canadian Gas Association.

(4) If the system of electrical wiring referred to in Subrule (1) hereof cannot be approved pursuant to Subrules (2) or (3) hereof, such system of electrical wiring shall be deemed to be approved when:

- (a) The system of electrical wiring has been inspected by the inspection department and found to conform to this Code and to present no undue hazard to persons or property;
- (b) A certificate or other writing evidencing the conformity has been issued by the inspection department;
- (c) All fees payable to the inspection department in respect of the inspection and certification have been paid; and
- (d) The panelboard bears an approval label supplied by the inspection department.

## 2-022 Sale or Other Disposal and Use

(1) No person shall advertise, display or offer for sale or other disposal, or sell or otherwise dispose of any electrical equipment unless it has been approved in accordance with Rule 2-024.

(2) No person shall connect any electrical equipment to a source of electrical power until such electrical equipment has been approved in accordance with Rule 2-024.

(3) No person shall use any electrical equipment unless it has been approved in accordance with Rule 2-024.

(4) Where a certification report in respect of any approved electrical equipment requires that a notice indicating the proper and safe manner of use of the equipment be affixed thereto or furnished therewith, no person shall sell or otherwise dispose of the equipment without affixing or furnishing the notice in the manner required by the certification report.

## 2-024 Approval of Electrical Equipment

(1) Electrical equipment is approved when:

- (a) a report has been issued by the Canadian Standards Association in respect of the equipment;
- (b) the report has been adopted by the inspection department;
- (c) the equipment bears a Canadian Standard Association mark or label;
- (d) the supplier of the equipment or a user has entered into an agreement with the Canadian Standards Association; and
- (e) the equipment meets all standards of design and construction prescribed by the report and complies with all terms and conditions contained therein.

(2) As an alternative to the requirements of Subrule (1) hereof, electrical equipment consisting of an assembly or combination of component parts intended for use solely in conjunction with or as an integral part of any appliance within the meaning of the *Energy Act* shall be deemed to be approved when:

- (a) the appliance bears a label in accordance with the Regulations made under the *Energy Act*; and
- (b) the manufacturer of the equipment has entered into a service agreement with the organization whose label is placed on the equipment.

(3) As an alternative to the requirements of Subrules (1) and (2), cooking appliances, liquid and air heaters, clothes dryers, heat pumps, refrigerators, and permanently installed air conditioners which use electricity as an energy source and are of the same basic construction as functionally identical equipment using gas as an energy source shall be deemed to be approved when:

- (a) a certification report is issued by the Canadian Gas Association that the equipment meets the applicable standards relating to the equipment;
- (b) the certification report has been adopted by the inspection department;
- (c) the certification mark of the Canadian Gas Association has been affixed permanently to the equipment;

- (d) the manufacturer of the equipment has entered into a service agreement with the Canadian Gas Association; and
  - (e) the equipment meets all standards of design and construction prescribed by the certification report and complies with all the terms and conditions contained therein.
- (4) As an alternative to the requirements of Subrule (1) hereof, all electrical equipment consisting of an assembly or combination of component parts intended for use in conjunction with or as an integral part of general fire protection equipment and burglar and fire alarm systems shall be deemed to be approved when:
- (a) a certification report has been issued by either the Canadian Standards Association or the Underwriters' Laboratories of Canada that the equipment meets the applicable standards relating to the equipment;
  - (b) the certification mark of the organization certifying the equipment has been affixed permanently to the equipment;
  - (c) the certification report has been adopted by the inspection department;
  - (d) the manufacturer of the equipment has entered into a service agreement with the Canadian Standards Association or Underwriters' Laboratories of Canada or both; and
  - (e) the equipment meets all standards of design and construction prescribed by the certification report and complies with all terms and conditions contained therein.
- (5) As an alternative to the requirements of Subrule (1) hereof, all electrical equipment consisting of an assembly or combination of component parts used as an integral part of a solid fuel-fired appliance shall be deemed to be approved when:
- (a) a certification report is issued by Warnock Hersey Professional Services Limited, the Underwriters' Laboratories of Canada or the Canadian Gas Association that the equipment meets the applicable standards relating to the equipment;
  - (b) the certification report has been adopted by the inspection department;
  - (c) the certification mark of the organization certifying the equipment has been affixed permanently to the appliance;
  - (d) the manufacturer of the equipment has entered into a service agreement with Warnock Hersey Professional Services Limited, Underwriters' Laboratories of Canada or the Canadian Gas Association as applicable; and
  - (e) the equipment meets all standards of design and construction prescribed by the certification report and complies with all terms and conditions contained therein.
- (6) As an alternative to Subrule (1) all electrical equipment consisting of an assemblage or combination of component parts used as an integral part of a plumbing fixture shall be deemed to be approved when:
- (a) a certification report is issued by Warnock Hersey Professional Services that the equipment meets the applicable standards relating to the equipment;
  - (b) the certification report has been adopted by the inspection department;
  - (c) the certification mark of Warnock Hersey Professional Services Limited has been affixed permanently to the fixture;
  - (d) the manufacturer of the equipment has entered into a service agreement with Warnock Hersey Professional Services Limited; and
  - (e) the equipment meets all standards of design and construction prescribed by the certification report and complies with all terms and conditions contained therein.
- (7) Electrical equipment built to customer's order, electrical equipment manufactured or produced singly or in small quantities and electrical equipment, that cannot be conveniently examined and tested by submission of samples, shall be submitted to the inspection department for examination and testing.
- (8) The prescribed equipment referred to in Subrule (4) hereof shall be deemed to be approved when:
- (a) the electrical equipment or a sample thereof has been examined and tested by the inspection department and found to conform to this Code and to present no undue hazard to persons or property;
  - (b) a certificate or other writing evidencing the conformity has been issued by the inspection department;
  - (c) all fees payable to the inspection department in respect of the examination and testing have been paid;
  - (d) the equipment bears an approval label supplied by the inspection department; and
  - (e) the equipment, in the case of examination and test by sample, is of the same standard of design and construction as the standard of the sample tested.

(9) Where any electrical equipment is used in, or connected to, an electrical installation or is about to be so used or connected, and having regard to public safety and protection of property, it would be sufficient to have the equipment inspected under Rule 2-004 instead of being approved under the foregoing provisions of this Rule, the inspection department may direct accordingly and thereupon the equipment shall be deemed to form a part of the electrical installation.

(10) No person shall affix to any electrical equipment other than the electrical equipment approved under Subrules (7), (8) and (9) hereof any label indicating or intended to indicate that the electrical equipment is approved other than an approval label that has been supplied by the inspection department or under a service agreement.

(11) No person shall affix any approval label to any electrical equipment other than the approved electrical equipment for which the label was issued.

(12) No person to whom approval labels have been supplied, either by the inspection department or under a service agreement, shall sell, give, transfer or permit any other person to have possession of the labels without first obtaining the consent in writing of the inspection department.

#### **2-026 Cancellation of Approval**

(1) The inspection department may cancel the approval of any electrical equipment where:

- (a) The equipment is not being manufactured or produced in conformance with the approvals obtained under Rule 2-024;
- (b) Field experience has shown the equipment to be unduly hazardous to life or property; or
- (c) The manufacturer of the equipment makes default in observing or performing any of the terms of the service agreement to which he is a party.

(2) When an approval has been cancelled, the equipment shall be deemed to be not approved.

#### **2-028 Miscellaneous**

(1) The testing and inspection by the inspection department of any electrical equipment under Subrules (7) and (8) of Rule 2-024 may be carried out by such inspectors at such times and places and in such manner as the inspection department from time to time determines.

(2) Subject to Subrule (9) of Rule 2-024, any electrical equipment used or capable of being used or adapted to serve or perform any particular purpose or function when connected to an electrical installation shall be approved before being so connected unless the connection is made for the purpose of inspection or testing of the equipment under this Code.

(3) Any electrical equipment that consists of an assembly or combination of other electrical equipment

is subject to this Code respecting approval, and is not approved by reason only that any or all of the component parts thereof have been individually approved.

**2-030 Deviation or Postponement.** A deviation from or postponement of the requirements of this Code is lawful in respect of an electrical installation where adequate proof that the deviation or postponement does not create an undue hazard to persons or property under the circumstances has been provided to an inspector of that installation.

#### **2-032 Damage and Interference**

(1) No person shall damage or cause any damage to any electrical installation or electrical equipment.

(2) No person shall interfere with any electrical installation or electrical equipment in the course of alterations or repairs to non-electrical equipment or structures except where it is necessary to disconnect or move components of an electrical installation, in which event it shall be the responsibility of the person carrying out the alterations or repairs to ensure that the electrical installation is restored to a safe operating condition as soon as the progress of the alterations or repairs permit.

**2-034 Use of Approved Equipment.** No one shall use any electrical equipment other than approved electrical equipment of a kind or type and rating approved for the specific purpose for which it is to be employed.

**2-036 General.** No contractor shall perform any work on an electrical installation in any manner contrary to the requirements of this Code.

### **Technical**

#### **General Rules**

#### **2-100 Marking of Equipment**

(1) Each piece of electrical equipment shall bear such of the following marking as may be necessary to identify the equipment and ensure that it is suitable for the particular installation:

- (a) The maker's name, trademark, or other recognized symbol of identification;
- (b) Catalogue number or type;
- (c) Voltage;
- (d) Rated load amperes;
- (e) Watts, volt-amperes, or horsepower;
- (f) Whether for ac, dc, or both;
- (g) Number of phases;
- (h) Frequency in hertz;
- (i) Rated load speed in revolutions per minute;
- (j) Designation of terminals;
- (k) Whether for continuous or intermittent duty;

(l) Evidence of approval;

(m) Such other marking as may be necessary to ensure safe and proper operation.

(2) Each service box, at the time of installation, shall be marked in a conspicuous, legible, and permanent manner, to indicate clearly the maximum rating of the overcurrent device which may be used for this installation.

(3) At each distribution point, circuit breakers, fuses, and switches shall be marked, adjacent thereto, in a conspicuous and legible manner to indicate clearly:

(a) Which installation or portion of installation they protect or control; and

(b) The maximum rating of overcurrent device that is permitted.

(4) The marking on electrical equipment shall not be added to or changed to indicate a use under this Code for which the equipment has not been approved.

## 2-102 Rebuilt Equipment

(1) Where any electrical machine or apparatus is rebuilt or rewound with any change in its rating or characteristics, it shall be provided with a nameplate giving the name of the person or firm by whom such change was made together with the new marking.

(2) Where the original nameplate is removed, the original manufacturer's name and any original identifying data, such as serial numbers, shall be added to the new nameplate.

(3) The appropriate requirements of the Canadian Electrical Code, Part II applying to new electrical equipment also apply to rebuilt and rewound equipment unless it is impracticable to comply with the requirements.

**2-104 Substitution.** Where electrical equipment of the exact size or rating is not procurable for a given purpose, equipment of such larger size or rating as is consistent with the use of equipment of the exact size or rating may be used or equipment of such smaller size or rating as is lawful under Rule 2-030 may be used.

**2-106 Circuit Voltage-To-Ground—Dwelling Units.** Branch circuits in dwelling units shall not have a voltage exceeding 150 volts-to-ground except that where the calculated load on the service conductors of an apartment or similar multi-family building exceeds 250 kva and where trained and qualified electrical maintenance personnel are available, higher voltages not exceeding the voltage-to-ground of a nominal system voltage of 347/600Y may be used in the dwelling unit to supply the following fixed (not portable) equipment:

(a) Space heating, providing wall mounted thermostats operate at a voltage not exceeding 300 volts-to-ground;

(b) Water heating;

(c) Air conditioning.

**2-108 Class of Workmanship.** The mechanical arrangement and execution of work in connection with any electrical installation are to result in an acceptable electrical installation.

**2-110 Material for Anchoring to Masonry and Concrete.** Wood or other similar material shall not be used as an anchor into masonry or concrete for the support of any electrical equipment.

## 2-112 Corrosion Protection for Materials Used in Wiring

(1) Metallic materials used in wiring, such as raceways, cable sheaths and armour, boxes and fittings shall be suitably protected against corrosion for the environment in which they are to be used or shall be made of suitable corrosion-resistant material.

(2) Where practicable, dissimilar metals shall not be used where there is a possibility of galvanic action.

**2-114 Soldering Fluxes.** Fluxes used for soldering copper and its alloys shall be of types that are non-corrosive to copper.

**2-116 AWG Sizes of Conductors.** Where reference is made in this Code to AWG size, this shall mean the copper AWG size, unless otherwise specified.

**2-118 Installation of Electrical Equipment.** Electrical equipment shall be so installed as to ensure that after installation there is ready access to nameplates and access to parts requiring maintenance.

**2-120 Installation of Other Than Electrical Equipment.** Equipment or material of other than an electrical nature shall not be installed or placed so close to electrical equipment as to create a condition which is dangerous, having regard to public safety and protection of property.

**2-122 Space for Service and Distribution Equipment.** The space provided for electrical service and distribution equipment shall be acceptable.

## 2-124 Use of Thermal Insulation

(1) Where the hollow spaces between studding, joists, or rafters of buildings are to be filled with thermal insulation, the following restrictions, as applicable, shall apply to the installation of electric wiring in such spaces:

(a) Special care shall be taken to ensure that conductor insulation temperatures are not exceeded due either to mutual heating of adjacent conductors or cables, or to reduced heat dissipation through the thermal insulation;

(b) If the space is to be filled with an approved loose or free flowing material which is non-corrosive, fire-resisting, and non-conducting, any

type of wiring system recognized by this Code may be used, but special care shall be taken to ensure that there will be no strain on the conductors due to weight or pressure of the insulating material;

- (c) If the thermal insulation material, in the form of batts or rigid sheets, is installed prior to the installation of the wiring and secured in place so that there will be no undue pressure on the conductors, no special precaution need be observed;
- (d) If thermal insulation made of or faced with metal is installed, the wiring shall conform to the following:
  - (i) a 25 millimetre separation shall be provided between the thermal insulation and the knob-and-tube wiring;
  - (ii) non-metallic sheathed cable may be in contact with the insulation;
- (e) Mineral-insulated cable or aluminum-sheathed cable shall not be used with types of thermal insulation which are liable to have a corrosive action on the sheath.

(2) Thermal insulation material shall not be sprayed or otherwise introduced into the interior of outlet boxes, junction boxes and enclosures for other electrical equipment.

## 2-126 Fire Spread

(1) Electrical installations shall be so made that the probability of spread of fire through fire-stopped partitions, floors, hollow spaces, fire walls or fire partitions, vertical shafts, ventilating or air-conditioning ducts, is reduced to a minimum.

(2) Where a fire separation is pierced by a raceway or cable, any openings around the raceway or cable shall be properly closed or sealed in accordance with the requirements of the Ontario Building Code.

**2-128 Flame Spread Requirements For Electrical Wiring and Cables.** Electrical wiring and cables installed in buildings shall meet the flame spread requirements of the Ontario Building Code.

## 2-130 Insulation Integrity.

(1) All wiring shall be so installed that when completed the system will be free from short circuits and from grounds except as permitted in Section 10.

(2) When insulation integrity tests are performed, solid-state components shall be completely disconnected for the test and reconnected afterwards.

**2-132 Use of Ground Fault Circuit Interrupters.** Ground fault circuit interrupters may be used as supplementary protection from shock hazard but shall

not be used as a substitute for insulation or grounding except as permitted by Rule 10-408(4).

## Protection of Persons and Property

**2-200 General.** Electrical equipment shall be installed and guarded so that adequate provision is made for the safety of persons and property and for the protection of the electrical equipment from mechanical or other injury to which it is liable to be exposed.

## 2-202 Guarding of Bare Live Parts

(1) Bare live parts shall be guarded against accidental contact by means of approved cabinets or other forms of approved enclosures except where the bare live parts are:

- (a) Located in a suitable room, vault, or similar enclosed area which is accessible only to qualified persons; or
- (b) As elsewhere permitted by this Code.

(2) Where electrical equipment has mounted on it, within 900 millimetres of bare live parts, non-electrical components that require servicing by unqualified persons, suitable barriers or covers shall be provided for the bare live parts.

(3) Entrances to rooms and other guarded locations containing exposed bare live parts shall be marked with conspicuous warning signs forbidding entry to unqualified persons.

## Maintenance and Operation

### 2-300 General Requirements for Maintenance and Operation

(1) All operating electrical equipment shall be kept in safe and proper working condition.

(2) Electrical equipment maintained for emergency service shall be periodically inspected and tested as is necessary to ensure its fitness for service.

(3) Infrequently used electrical equipment maintained for future service shall be thoroughly inspected before use in order to determine its fitness for service.

(4) Defective equipment shall either be put in good order or permanently disconnected.

**2-302 Maintenance in Hazardous Locations.** In locations where explosive or highly flammable materials or gases are present, special precautions shall be observed as follows:

- (a) Repairs or alterations shall not be made on any live equipment; and
- (b) Fits or seals in enclosures shall be maintained in their original safe condition.

### 2-304 Disconnection

(1) No repairs or alterations shall be carried out

on any live equipment except where complete disconnection of the equipment is not practicable.

(2) Three-way or four-way switches are not to be considered as disconnecting means.

(3) Adequate precautions, such as locks on circuit breakers or switches, warning notices, sentries, or other equally effective means, shall be taken to prevent electrical equipment from being electrically charged when work is being done thereon.

**2-306 Maintenance of Live Equipment.** No one shall work on any live equipment unless protected by approved insulated or insulating devices such as tongs, rubber gloves, boots, mats, etc., which shall always be maintained in proper condition for use.

#### **2-308 Working Space About Electrical Equipment**

(1) A minimum working space of 1 metre with secure footing shall be provided and maintained about electrical equipment such as switchboards, panelboards, control panels and motor control centres which are enclosed in metal, except that working space is not required behind such equipment where there are no renewable parts such as fuses or switches on the back and where all connections are accessible from locations other than the back.

(2) The space referred to in Subrule (1) shall be in addition to the space required for the operation of draw-out type equipment in either the connected, test, or fully disconnected position and shall be sufficient for the opening of enclosure doors and hinged panels to at least 90 degrees.

(3) Working space with secure footing not less than that specified in Table 56, shall be provided and maintained about electrical equipment such as switchboards, control panels and motor control centres having exposed live parts.

(4) The minimum headroom of working spaces about switchboards or motor control centres where bare live parts are exposed at any time shall be 2.2 metres.

#### **2-310 Entrance To, and Exit From, Working Space**

(1) Each room containing electrical equipment and each working space about equipment shall have suitable means of exit and entrance, which shall be kept clear of all obstructions.

(2) An exit may also be used as an entrance.

(3) If the plan of the room or space and the characteristics and arrangement of equipment are such that an accident would be liable to close or make inaccessible a single exit, a second exit shall be provided.

(4) Doors or gates of suitable material may be provided but they shall be capable of being readily opened from the equipment side without the use of a key or tool.

**2-312 Accessibility for Maintenance.** Passageways and working space around electrical equipment shall not be used for storage and shall be kept clear of obstruction and so arranged as to give authorized persons ready access to all parts requiring attention.

**2-314 Illumination of Equipment.** Adequate illumination shall be provided to allow for proper operation and maintenance of electrical equipment.

**2-316 Flammable Material Near Electrical Equipment.** Flammable material shall not be stored or placed in dangerous proximity to electrical equipment.

**2-318 Ventilation.** Adequate ventilation shall be provided so as to prevent the development about electrical equipment of ambient air temperatures in excess of those normally permissible for such equipment.

**2-320 Drainage.** Electrical equipment having provision for draining moisture shall be installed so that the drainage path is not impeded.

**2-322 Electrical Equipment Near Gas Meters.** Arc producing electrical equipment shall not be installed within a 1 metre distance of a meter used to measure natural gas, manufactured gas, or liquefied petroleum gases which are distributed in a gaseous state.

### **Enclosures**

#### **2-400 Enclosures, Designations and Use**

(1) The following designations of enclosures for electrical equipment other than motors and generators shall be recognized for the purposes of this Code for the intended use as specified:

##### **(a) CSA Enclosure 1:**

(i) A general purpose enclosure of metal or other suitable material which protects live parts from accidental contact;

(ii) For use indoors in ordinary locations;

##### **(b) CSA Enclosure 2:**

(i) A dripproof enclosure constructed or protected so that exposure to falling moisture will not impair the effectiveness of the enclosed equipment;

(ii) For use indoors where the enclosure may be subject to drops of falling liquid due to severe condensation or other causes;

##### **(c) CSA Enclosure 3:**

(i) A weatherproof enclosure constructed or protected so that exposure to the weather, to falling moisture, or to external splashing, will not impair the effectiveness of the enclosed equipment;

(ii) For use outdoors;

**(d) CSA Enclosure 4:**

- (i) A water-tight enclosure constructed so that a stream of water from a hose will not enter the enclosure;
- (ii) For use where the enclosure may be subject to direct streams of water;

**(e) CSA Enclosure 5:**

- (i) A dust-tight enclosure constructed so that dust, readily ignitable fibres, or combustible flyings cannot enter the enclosure;
- (ii) For use indoors where the atmosphere may carry non-hazardous dust, or as permitted in Section 18 for hazardous locations.

(2) An enclosure may be constructed so as to comply with two or more of these designations, as for example, a water- and dust-tight enclosure which meets the requirements for both designations.

(3) CSA Enclosure 3 may be used where CSA Enclosure 2 is required, and CSA Enclosure 4 may be used where CSA Enclosure 2 or CSA Enclosure 3 is required.

(4) Enclosures of equipment for use in a hazardous location shall be designated in accordance with Rule 18-052.

**2-402 Marking of Enclosures.** General purpose enclosures need not be marked to indicate the enclosure designation, but all others defined in Rule 2-400 shall be marked to indicate the enclosure designation.

**2-404 Marking of Motors**

(1) Dripproof, weatherproof and totally enclosed motors for use in non-hazardous locations shall be marked as follows:

- (a) If a dripproof motor, with the word "Dripproof" or the code letters "DP";
- (b) If a weatherproof motor, with the word "Weatherproof" or the code letters "WP";
- (c) If a totally enclosed motor, with the words "Totally Enclosed" or the code letters "TE".

(2) Notwithstanding Subrule (1), special purpose motors that are intended to be used only as components of specific equipment need not be so marked.

**SECTION 4—CONDUCTORS**

**4-000 Scope.** This Section applies to conductors for lighting, appliance and power supply circuits and does not apply to other conductors except where specifically referenced in other Sections of this Code.

**4-002 Size of Conductors.** Except for flexible cord, equipment wire, control circuit wire and cable,

conductors shall be not smaller than No. 14 AWG when of copper and not smaller than No. 12 AWG when of aluminum.

**4-004 Ampacity of Wires and Cables**

(1) The maximum current which a copper conductor of a given size and insulation may carry shall be as follows:

- (a) Single conductor, and single-conductor metal-sheathed or armoured cable, in a free air run, as specified in Table 1;
- (b) 1, 2, or 3 conductors in a run of raceway, or 2- or 3-conductor cable, as specified in Table 2; and
- (c) 4 or more conductors in a run of raceway or cable, as specified in Table 2, with the applicable correction factor applied as specified in Table 5C.

(2) The maximum current which an aluminum conductor of a given size and insulation may carry shall be as follows:

- (a) Single conductor, and single-conductor metal-sheathed or armoured cable, in a free air run, as specified in Table 3;
- (b) 1, 2, or 3 conductors in a run of raceway, or 2- or 3-conductor cable, as specified in Table 4; and
- (c) 4 or more conductors in a run of raceway or cable, as specified in Table 4, with the applicable correction factor applied as specified in Table 5C.

(3) A neutral conductor which carries only the unbalanced current from other conductors, as in the case of normally balanced circuits of three or more conductors, shall not be counted in determining ampacities as provided for in Subrules (1) and (2).

(4) A common conductor of a three-wire circuit, consisting of conductors connected to two phase wires and the neutral of a four-wire, three-phase system, carries approximately the same current as the other conductors, and shall not be considered as a neutral conductor.

(5) The maximum allowable ampacity of neutral supported cable shall be as specified in Table 36.

(6) A bonding conductor shall not be counted in determining the ampacities as provided for in Subrules (1) and (2).

(7) The correction factors specified in this Rule,

- (a) apply only to, and shall be determined from, the number of power and lighting conductors in a cable or raceway; and
- (b) shall not apply to conductors installed in auxiliary gutters.

(8) The ambient correction factors of Table 5A shall apply where conductors are installed in an ambient exceeding or anticipated to exceed 30°C.

(9) Where single conductors having a free air rating are run in contact with each other, the ampacity shall be corrected by applying the factors in Table 5B for up to four conductors in contact, and by utilizing the ampacity of Table 2 or 4 where there are more than four in contact.

(10) Where multi-conductor cables are run in contact with each other for distances exceeding 600 millimetres, the ampacity of the conductors shall be corrected by applying the factors in Table 5C.

(11) The ampacity of conductors of different temperature ratings installed in the same raceway on the basis of the conductor having the lowest temperature rating.

(12) The ampacity of conductors added to a raceway and the ampacity of the conductors already in the raceway shall be determined in accordance with the applicable Subrules.

(13) The ampacity of service conductors supplying enclosed fusible switches not exceeding 600 amperes shall not be less than the switch rating.

(14) Notwithstanding Subrule (13), where the load can be determined under Section 8, the ampacity of service conductors supplying enclosed fusible switches rated over 100 amperes but not exceeding 600 amperes shall not be less than the load or 80 per cent of the switch rating, whichever is the greater.

(15) The requirements of Subrules (13) and (14) shall also apply to the conductors on the load side of the main service switch or equivalent up to the first point of distribution or equivalent;

(16) Subrules (13), (14) and (15) shall not apply to conductors supplying:

- (i) A single fixed load where the load is unlikely to be increased; nor,
- (ii) A motor load where the conductors are sized in accordance with Section 28.

#### 4-006 Insulated Conductors

(1) Insulated conductors shall be of types specified in Table 19 for each specific condition of use, except as may be otherwise required by other Sections of this Code.

(2) Where harmful condensed vapours or liquids of either an acid or alkaline nature or organic solvents such as hydrocarbons, ketones, esters, alcohols, or liquid derivatives thereof, may collect on or come in contact with insulation on conductors, the insulation shall be of a type resistant to these materials or the insulation shall be protected by a sheath of lead or by other approved means.

#### 4-008 Sheath Currents in Single-Conductor Metallic-Sheathed Cables

(1) Where sheath currents in single-conductor cables having continuous sheaths of lead, aluminum, or copper are likely to cause the insulation of the conductors to be subjected to temperatures in excess of the insulation ratings, the cables shall be:

- (a) Derated to 70 per cent of current-carrying rating which would otherwise apply;
- (b) Derated in accordance with the manufacturer's instructions and lawful under Rule 2-030; or
- (c) Installed in such a manner as to prevent the flow of sheath currents.

(2) Circulating currents in single-conductor armoured cable shall be treated in the same manner as sheath currents in Subrule (1).

#### 4-010 Uses of Flexible Cord

(1) Flexible cord shall be of the types specified in Table 11 for each specific condition of use.

(2) Flexible cord may be used for:

- (a) Electrical equipment for household or similar use having a rating of 15 amperes or less at voltages not exceeding 250 volts and which is intended to be:

- (i) Moved from place to place; or
- (ii) Detachably connected according to a Part II Standard;

- (b) Electrical equipment for industrial use which must be capable of being moved from place to place for operation;

(c) Pendants;

(d) Wiring of cranes and hoists;

- (e) The connection of stationary equipment to facilitate its interchange if the connection is lawful under Rule 2-030;

(f) The prevention of transmission of noise and vibration;

(g) The connection of electrical components between which relative motion is necessary;

(h) The connection of appliances such as ranges and clothes dryers; and

- (i) Both connection using an attachment plug, and interconnection of data processing systems, provided the cord or cable is of the extra-hard usage type.

(3) Flexible cord shall not be used:

- (a) As a substitute for the fixed wiring of structures and shall not be:

- (i) Permanently secured to any structural member;
  - (ii) Run through holes in walls, ceilings, or floors; or
  - (iii) Run through doorways, windows, or similar openings;
- (b) At temperatures above the temperature rating of the cord or at temperatures sufficiently low as to be liable to result in damage to the insulation or overall covering;
- (c) For the suspension of any device weighing more than 2.3 kilograms, unless the cord and device assembly are marked as capable of supporting a weight up to 11 kilograms.
- (4) Flexible cord shall be protected by an insulating bushing or in some other acceptable manner where it enters or passes through a wall or partition of a device or enters a lampholder.
- (5) Where a flexible cord is used as an extension cord or to plug into an appliance or other device, no live parts shall be exposed when one end is connected to a source of supply and the other end is free.

**4-012 Sizes of Flexible Cord.** Flexible cord shall not be smaller than a No. 18 AWG copper conductor except for:

- (a) Tinsel cord, which may be No. 27 AWG copper; and
- (b) Cords for use with specific devices which may be No. 20 AWG copper.

#### **4-014 Ampacity of Flexible Cords**

(1) The maximum current which 2 or more copper conductors of given size contained in a flexible cord may carry, shall be as follows:

- (a) 2 or 3 conductors—as specified in Table 12;
- (b) 4, 5, or 6 conductors—80 per cent of that specified in Table 12;
- (c) 7 to 24 conductors inclusive—70 per cent of that specified in Table 12;
- (d) 25 to 42 conductors inclusive—60 per cent of that specified in Table 12;
- (e) 43 or more conductors—50 per cent of that specified in Table 12.

(2) Conductors used for bonding equipment to ground and a conductor used as a neutral conductor, which carries only the unbalanced current from other conductors, as in the case of a normally balanced circuit of three or more conductors, are not counted in determining conductor ampacity.

#### **4-016 Flexible Cord Used in Show Windows or Show Cases**

- (1) Flexible cord used in show windows or show cases shall, except for chain fixtures, be at least of hard usage types.
- (2) The use of flexible cord to supply current to portable lamps and other devices for exhibition purposes is permitted.

#### **4-018 Equipment Wire**

- (1) Equipment wire shall be of a type specified in Table 11 for each specified condition of use.
- (2) Equipment wire used as fixture wiring shall be not smaller than a No. 18 AWG copper conductor.
- (3) Christmas-tree wire shall not be smaller than a No. 20 AWG copper conductor.

(4) The maximum current which a fixture wire or a Christmas-tree wire of a given size may carry shall be that specified in Table 12.

#### **4-020 Insulation of Neutral Conductors**

- (1) Except as permitted by Rules 6-302, 6-308, 12-302, and 12-318 neutral conductors shall be insulated.
- (2) Where insulated neutrals are used, the insulation on the neutral conductors shall have a temperature rating not less than the temperature rating of the insulation on the ungrounded conductors.

#### **4-022 Size of Neutral Conductor**

- (1) The neutral conductor shall have sufficient ampacity to carry the unbalanced load.
- (2) The maximum unbalanced load shall be the maximum connected load between the neutral and any one ungrounded conductor as determined by Section 8 but subject to the following:

- (a) There shall be no reduction of the neutral capacity for that portion of the load which consists of electric discharge lighting; and
- (b) Except as required otherwise by Subrule (a), a demand factor of 70 per cent is permitted to be applied to that portion of the unbalanced load in excess of 200 amperes.

(3) The size of an insulated or uninsulated neutral used in services shall be not smaller than the size of a neutral selected in accordance with Subrule (1) and shall be not smaller than:

- (a) No. 10 AWG copper or No. 8 AWG aluminum; and
- (b) The size of a grounding conductor required by Rule 10-812 except in service entrance cable, or

where the service conductors are No. 10 AWG copper or No. 8 AWG aluminum.

(4) In determining the ampacity of an uninsulated neutral conductor run in a raceway, it shall be considered to be insulated with insulation having a temperature rating not higher than that of the adjacent circuit conductors.

**4-024 Common Neutral Conductor.** Providing that when in metal enclosures all conductors of feeder circuits employing a common neutral are contained within the same enclosure, a common neutral may be employed for:

- (a) Two or three sets of three-wire, single-phase feeders; or
- (b) Two sets of four-wire, three-phase feeders.

**4-026 Installation of Neutral Conductor.** Where a service, feeder, or branch circuit requires a neutral conductor, it shall be installed:

- (a) In all separately enclosed switches and circuit breakers;
- (b) In all centres of distribution associated with the circuit;
- (c) With all connections to the neutral being made in the enclosures and centres; and
- (d) In such a manner that any neutral conductor may be disconnected without disconnecting any other neutral conductor.

**4-028 Identification of Insulated Neutral Conductors Up to and Including No. 2 AWG Copper or Aluminum**

(1) Except as permitted in Subrule (2), all insulated neutral conductors up to and including No. 2 AWG copper or aluminum and the insulated conductors of all flexible cords permanently attached to such neutral conductors shall be identified by a white or natural grey covering.

(2) The covering of the other conductor or conductors shall show a continuous colouring contrasting with that of an identified conductor except that in the case of those flexible cords where the identified conductor is identified by a raised longitudinal ridge or ridges, the other conductors shall have no ridges.

**4-030 Identification of Insulated Neutral Conductors Larger Than No. 2 AWG Copper or Aluminum.** For insulated neutral conductors larger than No. 2 AWG copper or aluminum and for those having other than rubber or thermoplastic insulation, identification shall either be continuous, as for No. 2 AWG and smaller, or else each continuous length of conductor shall be suitably labelled or otherwise clearly marked at each end at the time of installation, so that it can be readily identified.

**4-032 Identification of Type MI Neutral Conductors.** Where mineral-insulated cable is used for neutral conductors, and where continuous identification of this type of conductor is, at present, technically impossible in manufacture, each continuous length of conductor shall be permanently and clearly marked at each end at the time of installation, so that it can be readily identified.

**4-034 Use of Identified Conductors**

(1) An identified conductor shall not be used as a conductor for which identification is not required by these rules except that in armoured cable, aluminum-sheathed cable, and non-metallic sheathed cable work, the identified conductor may be rendered permanently unidentifiable by painting or other suitable means at every point where the separate conductors have been rendered accessible and visible by removal of the outer covering of the cable.

(2) Where armoured cable, aluminum-sheathed cable, or non-metallic sheathed cable containing an identified conductor is used for single-pole, 3-way or 4-way switch loops, it shall not be necessary to render the identified conductor permanently unidentified at the switch if the connections are made so that an unidentified conductor is the return conductor from the switch to the outlet.

(3) Where armoured cable, aluminum-sheathed cable or non-metallic sheathed cable is used so that the identified conductor forms no part of the circuit, the identified conductor shall be cut off short or other suitable means shall be employed to indicate clearly that the identified conductor does not form part of the circuit and this shall be done at every point where the separate conductors have been rendered accessible and visible by removal of the outer covering of the cable.

(4) Where conductors of a multi-wire branch circuit are installed, employing an identified conductor, the continuity of the identified conductor shall be independent of device connections, such as lampholders, receptacles, ballasts, etc., so that devices may be disconnected without interrupting the continuity of the identified conductor.

**4-036 Colour of Conductors**

(1) Insulated grounding or bonding conductors shall:

- (a) have a continuous outer finish that is either green or green with one or more yellow stripes; or
- (b) if larger than No. 2 AWG, be permitted to be labelled or marked in a permanent manner with a green colour or green with one or more yellow stripes at each end and at each point where the conductor is accessible.

(2) Conductors coloured or marked in accordance with Subrule (1) shall only be used as grounding or bonding conductors.

(3) Where colour coded circuits are required, the following colour coding shall be used, except in the

case of service-entrance cable and insofar as Rules 4-030 and 6-308 may modify these requirements:

- 1 phase ac  
or dc (2-wire)—1 black and 1 red  
or  
1 black and 1 white or natural  
grey (where identified conductor  
is required)
- 1 phase ac  
or dc (3-wire)—1 black, 1 red, and 1 white or  
natural grey
- 3 phase ac —1 red (phase A), 1 black (phase B),  
1 blue (phase C), and 1 white or  
natural grey (where neutral is  
required).

(4) Where the mid-point of one phase of a 4-wire delta-connected secondary is grounded to supply lighting and similar loads, the conductors shall be colour coded in accordance with Subrule (3) and the phase A conductor shall be the conductor having the higher voltage-to-ground.

(5) Where a panelboard is supplied from a 4-wire delta-connected system the grounded conductor referred to in Subrule (4) shall be located in a compartment provided for single phase connections and the phase conductor having the higher voltage-to-ground shall be suitably barriered from that compartment.

#### 4-038 Uses of Portable Power Cable

(1) Portable power cables shall be of a type as specified in Table 11 for each specific condition of use.

(2) Portable power cables are permitted for:

- (a) electrical equipment that is intended to be:
  - (i) moved from place to place; or
  - (ii) detachably connected according to a Canadian Electrical Code Part II Standard;
- (b) wiring of cranes and hoists;
- (c) the connection of stationary equipment to facilitate its interchange;
- (d) the connection of electrical components between which relative motion is necessary; and
- (e) the connection of equipment used in conjunction with travelling amusement rides.

(3) Portable power cable shall not be used:

- (a) as a substitute for the fixed wiring of structures and shall not be:
  - (i) permanently secured to any structural member;

(ii) run through holes in walls, ceilings, or floors of permanent structure; or

(iii) run through doorways, windows, or similar openings of permanent structures;

(b) at a temperature above the temperature rating of the cable or at a temperature sufficiently low as to be liable to result in damage to the insulation or overall covering.

(4) Where portable power cable enters or passes through the wall of an enclosure or fitting it shall be protected in accordance with Rule 12-3026.

#### 4-040 Ampacity of Portable Power Cable

(1) The maximum current which one or more copper conductors of a given size contained in a portable power cable may carry shall be as specified in Table 12A.

(2) Conductors used for bonding equipment to ground and a conductor used as a neutral which carries only the unbalanced current from other conductors, as in the case of a normally balanced circuit of 3 or more conductors, are not considered in determining conductor ampacities.

### SECTION 6—LOW-POTENTIAL SERVICES AND SERVICE EQUIPMENT

**6-000 Scope.** This Section applies to services, service equipment, and metering equipment for:

- (a) Installations operating at voltages of 750 volts or less; and
- (b) Installations operating at voltages in excess of 750 volts except as modified by the requirements of Section 36.

#### General

**6-100 Special Terminology.** For this Section the following definition applies:

A "transformer rated meter mounting device" means a meter mounting device with current transformers with or without test switches mounted in the same enclosure.

#### 6-102 Number of Supply Services Permitted

(1) Two or more supply services of the same voltage and other characteristics shall not be run to any building from the same system of any supply authority except for:

- (a) fire pumps and other emergency systems;
- (b) buildings of large area;
- (c) multiple occupancy buildings with readily definable areas separated by partitions having:

- (i) fire ratings in accordance with the requirements of the Ontario Building Code, or
- (ii) a 3 hour fire rating; or
- (d) where several buildings or sections of buildings cover a common parking or service area located below the buildings.

(2) Where two or more supply services of different voltages or classification are installed in or to a building, all consumers' services shall be grouped where practicable.

**6-104 Number of Consumer's Services Permitted In or On a Building.** The number of consumer's services of the same voltage and characteristic, terminating at any one supply service, run to, on or in any building, shall not exceed four or such larger number as is lawful under Rule 2-030.

**6-106 Current Supply from More Than One System.** Where an installation, or portion thereof, is to be supplied with current from two or more different systems, the switching equipment controlling the various supplies shall be constructed or arranged so that it will be impossible to accidentally switch on power from one source before that from another has been cut off.

**6-108 Supply Service from an Electric Railway System.** A supply service shall not be run to a building from an electric railway system using a ground return, unless the building is connected with the operation of an electric railway.

**6-110 Three-Wire Consumer's Services.** A three-wire consumer's service shall be provided in all cases where more than two 120 volts branch circuits are installed, unless such supply is not available from the supply authority.

**6-112 Support for the Attachment of Overhead Supply Service Conductors**

(1) An acceptable means of attachment shall be provided for all supply or consumer service conductors.

(2) The point of attachment of supply or consumer service conductors shall be not less than 4.5 metres nor more than 9 metres above sidewalk or grade level and shall be so located and of such a height as to afford at a temperature of 16°C a clearance measured vertically between the conductors and the ground of at least:

- (a) 4.5 metres on properties accessible to pedestrians and passenger vehicles only; or
- (b) 6 metres on properties accessible to commercial and farm vehicles.
- (3) Exposed service conductors, which are not higher than windows, doors, and porches shall have a clearance of not less than 1 metre, therefrom.

(4) Where service masts are used they shall be of

metal and assembled from components suitable for service mast use and shall be installed in an acceptable manner.

(5) Rigid steel conduit of a minimum nominal size of 2½ inches is permitted to be used for the purpose of Subrule (4) provided that all other requirements for a service mast are complied with.

(6) Bolts shall be used for securing the support at the point of attachment, and if attached to wooden structural members, the latter shall be not less than 38 millimetres in any dimension.

(7) The supply or consumer service conductor support shall not be attached to the roof of a structure, except as permitted in Subrule (8).

(8) Notwithstanding Subrule (7), it is permitted to fasten the upper service mast support and the eye bolt to which a guy wire is attached to a main structural member of the roof such as a roof rafter, a roof truss, or equivalent.

**6-114 Methods of Terminating Conductors at Consumer's Service**

(1) The supply end of a consumer's service shall be equipped with an approved rain-tight service-head except as provided for in Subrules (2) and (3).

(2) Where service cables are employed and are continuous from the supply service to the service equipment, the service head required by Subrule (1) may be omitted.

(3) Where single-conductor cables or multi-conductor cables are employed the service head required by Subrule (1) may be omitted provided:

- (a) The cable terminates in an approved cable termination suitable for exposure to the weather; or
- (b) The cable ends are sealed with self-sealing weather resistant thermoplastic tape or heat shrinkable tubing; and
- (c) Both single-conductor and multi-conductor cables are bent as may be necessary so the conductors emerging from the sealed point of the cable termination will point downwards; and
- (d) The cables are held securely in place by a clamp, fitting, or cable termination approved for the purpose.

(4) Conductors of different polarity shall be brought out through separately bushed holes of the service head.

(5) Consumer's service conductors shall be installed as specified in Rule 6-302(3).

(6) The overhead supply service conductors and the

consumer service conductors shall be arranged according to the requirements of Rule 6-114 so as to prevent moisture and water from entering service raceways, cables or equipment.

**6-116 Consumer's Service Head Location.** The consumer's service head or equivalent shall be installed:

- (a) In an acceptable location;
- (b) In a location which complies with applicable codes or standards under a rule or by-law of the supply authority concerning the location of a consumer's service head; and
- (c) In such a position that the point of emergence of the conductors from the consumer's service head or equivalent is a minimum of 150 millimetres and a maximum of 300 millimetres above the support for attachment of the overhead service conductors.

### Control and Protective Equipment

#### 6-200 Service Equipment

(1) Except as provided in Subrule (2), each consumer's service shall be provided with a single service box.

(2) Where acceptable, or unless prohibited by a code or standard under a rule or by-law of the supply authority concerning the number of service boxes, more than one service box shall be permitted to be connected to a single consumer's service for a residential occupancy provided:

- (a) The subdivisions are made in a multiple meter mounting device rated at not more than 600 amperes and 150 volts to ground; and
- (b) The meter mounting device is located outdoors.

(3) For the application of Rule 6-104, each subdivision of the multiple meter mounting device in Subrule (2) shall be considered a consumer's service.

(4) Notwithstanding Subrule (1) for services greater than 3000 amperes, where the supply is not more than 150 volts-to-ground, up to three separate switchgear all located in the same electrical room are permitted in lieu of a single service switch or circuit breaker and each service subdivision shall be provided with ground fault protection.

**6-202 Subdivision of Main Consumer's Service.** In multiple occupancy and in single occupancy multi-rate service, each subdivision of the main consumer's service shall be provided with a separate service box, or equivalent multi-service equipment shall be used, but in the case of single occupancy multi-rate services where the main consumer's service overcurrent devices adequately protect any subdivision of the main consumer's service, the separate service box for the

subdivision so protected may be omitted if to do so is lawful under Rule 2-030.

**6-204 Fuse Enclosures on Service Boxes.** If a service box embodies one or more fuse holders, access to which may be had without opening the door, such receptacles and their fuses shall be completely enclosed by a separate door, spring-closed, or having a substantial catch.

**6-205 Overcurrent Device Accessible to the Consumer.** If a consumer's service supplies one branch circuit only and the service box containing the overcurrent device is to be locked or sealed, overcurrent devices accessible to the consumer shall be inserted in series with the consumer's service overcurrent device and on the load side of the meter, but they shall be of a smaller ampacity than the consumer's service overcurrent devices, unless the latter be not more than 15 amperes.

#### 6-206 Consumer's Service Equipment Location.

(1) Service boxes or other consumer's service equipment shall be installed in an acceptable location and in compliance with applicable codes or standards under a rule or by-law of the supply authority concerning the location of service boxes or other service equipment and shall be:

- (a) Readily accessible or have the means of operation readily accessible;
- (b) Not located in coal bins, clothes closets, bathrooms, stairways, rooms in which the temperature normally exceeds 30°C, dangerous or hazardous locations, in locations where the headroom clearance is less than 2 metres, or in any similar undesirable locations;
- (c) Placed within the building being served, or alternatively, if the environmental conditions within the building are unsuitable, on the outside of a building or on a pole if that alternative placement is lawful under Rule 2-030 and the services boxes or other service equipment are,
  - (i) Protected from the weather, or be weatherproof; and
  - (ii) Protected from mechanical injury if less than 2 metres above ground; and
- (d) As close as practicable to the point where the consumer's service conductors enter the building.

(2) Notwithstanding Subrule (1)(a), where the service disconnecting means is subject to unauthorized operation, it is permitted to be rendered inaccessible by:

- (a) An integral locking device;
- (b) An external lockable cover; or

- (c) Locating the service box inside a separate building, room or enclosure.

**6-207 Supports for Service Boxes.** The back surface of a service box is not permitted to be in direct contact with, or within 50 millimetres through air, measured perpendicularly to the surface, of a material having a flame spread rating greater than 25, where the service box is located in a room or area of combustible construction.

**6-208 Consumer's Service Conductors Considered to be Outside the Building.** Raceways or cables shall be considered to be outside the building where they are:

- (a) Embedded in and encircled by not less than 50 millimetres of concrete or masonry where permitted by Section 12;
- (b) Directly buried in accordance with Rule 6-300 and located beneath a concrete slab not less than 50 millimetres thick; or
- (c) Run in a crawl space located underneath a structure provided the crawl space:
  - (i) Does not exceed 1.8 metres in height between the lowest part of the floor assembly and the ground or other surface below it;
  - (ii) is of non-combustible construction; and
  - (iii) is not used for the storage of combustible material.

**6-210 Oil Switches and Oil Circuit Breakers Used as Service Switches**

(1) Isolating switches shall be installed on the supply side and interlocked with oil switches and oil circuit breakers except in the case of metal clad equipment where the primary isolating device shall be considered to be the equivalent of an isolating switch or link.

(2) Where overcurrent trip coils are used for breakers, one shall be installed on each ungrounded conductor of the circuit or, if such installation is lawful under Rule 2-030 and the capacity of the transformers and the extent of the network supplying the service is sufficiently small, two trip coils, one in each phase of a four-wire two-phase ungrounded service, may be used.

**6-212 Wiring Space in Enclosures**

(1) Enclosures for circuit breakers and externally operated switches shall not be used as junction boxes, troughs, or raceways for conductors feeding through or tapping off to other apparatus.

(2) Notwithstanding Subrule (1), service equipment specifically designed to accommodate current monitoring devices are permitted.

**6-214 Marking of Service Boxes.** If there be more service boxes than one, each such box shall be labelled

in a conspicuous, legible and permanent manner to indicate clearly which installation or portion of an installation it controls.

**Wiring Methods**

**6-300 Underground Consumer's Services**

(1) Except where some other manner of installation or description of conductor is lawful under Rule 2-030, consumer's service conductors run underground to a building from an underground supply system or from a pole line shall be,

- (a) Installed in rigid conduit and be of a type for use in wet locations as indicated in Table 19; or
- (b) A single- or multiple-conductor cable for service entrance use below ground in accordance with Table 19 providing that:
  - (i) The installation is in accordance with Rule 12-012;
  - (ii) Rigid conduit is used for mechanical protection where portions are exposed to injury; and
  - (iii) The cable is without splice or joint from the point of connection at the supply service to the consumer's service equipment in the building; or
- (c) A single-conductor cable approved for direct burial in accordance with Table 19.

(2) Consumer's service conduit entering a building underground shall be suitably drained.

(3) Consumer's service conduit connected to an underground supply system shall be sealed with a suitable compound to prevent the entrance of moisture or gases.

(4) Consumer's service conductors to single family dwellings where practicable shall enter such dwellings above finished grade.

**6-302 Consumer's Service Conductors**

(1) Conductors of a consumer's service which are connected to an overhead supply service at any point above ground on a building shall be installed in rigid metal conduit or in one of the following ways if acceptable:

- (a) Other types of rigid conduit;
- (b) Busway;
- (c) Flexible metal conduit, the conductors being lead-sheathed;
- (d) Armoured lead-sheathed cable;
- (e) Mineral-insulated cable other than the light-weight type;

- (f) Aluminum-sheathed cable;
- (g) Type ACWU75 or Type ACWU90 cable;
- (h) Type AC90 cable;
- (i) Type TECK90 cable;
- (j) Service entrance cable, Type USE, provided that:
  - (i) It is protected by approved means if within 2 metres of the ground;
  - (ii) The voltage does not exceed 300 volts between conductors and 150 volts-to-ground;
  - (iii) It is supported at intervals not exceeding 1 metre; and
  - (iv) Except for Style RA75, it is mounted on insulating supports which hold it not less than 50 millimetres from a conducting surface if adjacent to the surface.

(2) That portion of the consumer's service conductors on the supply side of the service head run on the outside walls of buildings may be run as exposed wiring using types of conductors suitable for exposure to the weather.

(3) The length of consumer's service conductors beyond the service head shall be adequate to enable connection to the supply service conductors or to the conductors referred to in Subrule (2) with a minimum length of 750 millimetres and the conductors shall be provided with drip loops.

(4) Consumer's service conductors shall be not less than No. 10 AWG copper wire, nor less than No. 8 AWG aluminum wire.

(5) The insulation on consumer's service conductors shall be suitable for the temperatures which can be experienced in the particular locality.

#### **6-304 Use of Mineral-Insulated and Aluminum-Sheathed Cable**

(1) Mineral-insulated cable and aluminum-sheathed cable may be used for services as specified in Rule 6-302:

- (a) In a multi-conductor construction; or
- (b) In single-conductor construction in sizes larger than No. 4 AWG copper or aluminum.

(2) Mineral-insulated cable and aluminum-sheathed cable may be exposed and secured directly to the surface over which it is run, but subject to protection as specified in Rule 6-306(c).

**6-306 Consumer's Service Raceways.** Consumer's service raceways shall:

- (a) Contain no other than consumer's service conductors, and contain the conductors of no more

than one consumer's service or of such greater number of consumer's services as is lawful under Rule 2-030;

- (b) Be protected against mechanical damage as required by Rule 12-1032; and

- (c) If of circular cross-section, have an internal diameter not less than  $\frac{3}{4}$  inch.

**6-308 Use of Bare Neutral in Consumer's Service.** The Neutral conductor of a consumer's service is permitted to be bare if this conductor is:

- (a) Made of copper and is run in a raceway;
- (b) Made of aluminum and is run above ground in a non-metallic or in an aluminum raceway;
- (c) Part of a busway or of a service entrance cable; or
- (d) Part of a neutral supported cable used in accordance with Rule 6-302(2).

**6-310 Use of Joints and Splices in Consumer's Service Neutral Conductors.** The neutral or identified conductor of a consumer's service shall be without joints or splices between the point of connection and the service box or equivalent consumer's service equipment, except that a joint may be made by means of an approved clamp or bolted connection in a meter mounting device or at the service head if exposed wiring is used in accordance with Rule 6-302(2).

#### **6-312 Condensation in Consumer's Service Raceway**

(1) Where condensation is likely to occur due to changes in temperature, consumer's service raceway or the equivalent shall be either effectively drained or sealed.

(2) The consumer's service raceway shall not be terminated on top of the service box except where drained outdoors.

### **Metering Equipment**

**6-400 Metering Equipment.** Metering equipment includes any current and potential transformers as well as the associated measuring instruments.

#### **6-402 Method of Installing Meter Loops**

(1) Meter loops shall be installed so that:

- (a) Conductors between the service box and the meter are inaccessible to unauthorized persons;
- (b) The wiring method is rigid conduit, flexible metal conduit, electrical metallic tubing, aluminum-sheathed cable, or armoured cable, except where equivalent protection is provided;

- (c) Spare conductors not less than 450 millimetres in length are provided at meter or current transformer connection points; and
  - (d) A suitable fitting, or service box with meter backplate is provided.
- (2) Metering equipment shall be connected on the load side of the service box except that it may be connected on the supply side where:
- (a) No live parts or wiring are exposed;
  - (b) The supply is ac and the potential does not exceed 300 volts between conductors;
  - (c) The rating of the consumer's service does not exceed:
    - (i) 200 amperes for a meter mounting device; or
    - (ii) 600 amperes for a transformer rated meter mounting device located outdoors;
  - (d) The conductors to the line side of the meter and the conductors from the load side of the meter are in separate raceways; and
  - (e) Notwithstanding Paragraph (d) where an existing 'TEE' service is replaced or upgraded, a 'TEE' service is permitted to be utilized.

#### 6-404 Enclosures for Instrument Transformers

(1) Instrument transformers used in conjunction with meters shall be installed in metal enclosures, except where access is only to authorized persons.

(2) The size of enclosures for instrument transformers shall be in compliance with the applicable code or standard under a rule or by-law of the supply authority concerning the size of enclosures.

(3) Enclosures for current transformers shall be installed on all services rated in excess of 200 amperes except where:

- (a) Current transformers are an integral part of service switchgear; or
- (b) The supply authority uses meters which do not require current transformers.

(4) Enclosures for instrument transformers shall have mounting plates or other acceptable provisions for securing of the transformers to the enclosures.

**6-406 Disconnecting Provisions for Meters.** In multiple occupancy and in single occupancy multi-rate service where individual metering is required the conductors to each meter shall be provided with one of the following:

- (a) A separate service box or service equipment; or
- (b) A sealable meter fitting.

#### 6-408 Location of Meters

(1) Meters and metering equipment shall be installed in acceptable locations, in compliance with applicable codes and standards under a rule by-law of the supply authority concerning the location of meters and metering equipment and shall be:

- (a) Located as near as practicable to the service box except as provided for in Subrule (2);
- (b) Grouped where practicable;
- (c) Readily accessible;
- (d) Not located in coal bins, clothes closets, bathrooms, stairways, high ambient rooms, dangerous or hazardous locations, nor in any similar undesirable places; and
- (e) If mounted outdoors, of weatherproof construction or in weatherproof enclosures.

(2) Instrument transformers may be outside the consumer's premises and the meter inside the premises, providing the secondary leads between the instrument transformers and the meter terminal box or test links are continuous and are installed in the same manner as consumer's service conductors, with the exception that a service box with disconnecting switch is not required.

**6-410 Space Required for Meters.** The space provided for meters shall be of such dimensions as to be adequate for access, operation and maintenance and shall be in compliance with applicable codes and standards under a rule or by-law of the supply authority concerning the space provided for meters.

### SECTION 8—CIRCUIT LOADING AND DEMAND FACTORS

#### Scope

**8-000 Scope.** This Section covers:

- (a) Conductor ampacities and equipment ratings required for consumer's services, feeders, and branch circuits; and
- (b) Branch circuit positions required for buildings for residential occupancy.

#### General

**8-100 Current Calculations.** When calculating currents which will result from loads, expressed in watts or volt-amperes, to be supplied by a low-voltage ac system, the voltage divisors to be used shall be 120, 208, 240, 277, 347, 416, 480, or 600 as applicable.

#### 8-102 Voltage Drop

- (1) Voltage drop in an installation shall:

- (a) Be based upon the calculated demand load of the feeder or branch circuit;
  - (b) Not exceed 5 per cent from the supply side of the consumer's service (or equivalent) to the point of utilization; and
  - (c) Not exceed 3 per cent in a feeder or branch circuit.
- (2) For the purposes of Subrule (1) the demand load on a branch circuit shall be the connected load, if known, otherwise 80 per cent of the rating of the overload or overcurrent devices protecting the branch circuit, whichever is smaller.

#### 8-104 Maximum Circuit Loading

(1) The ampere rating of a consumer's service, feeder or branch circuit shall be the ampere rating of the overcurrent device protecting the circuit or the ampacity of the conductors, whichever is less.

(2) The calculated load for a circuit shall not exceed the ampere rating of the circuit.

(3) The calculated load for a consumer's service feeder or branch circuit shall be considered to be a continuous load unless it can be shown that in normal operation the load will not persist for:

- (a) A total of more than 1 hour in any two-hour period if the load does not exceed 225 amperes; or
- (b) A total of more than 3 hours in any six-hour period if the load exceeds 225 amperes.

(4) Where a service box, fusible switch, circuit breaker, or panelboard is marked for continuous operation at 100 per cent of the ampere rating of its overcurrent devices, the continuous load as determined from the calculated load shall not exceed:

- (a) 100 percent of the rating of the circuit where the ampacity of the conductors is based on Columns 2, 3, or 4 of Tables 2 or 4; or
- (b) 85 percent of the rating of the circuit where the ampacity of the conductors is based on Columns 2, 3, or 4 of Tables 1 or 3.

(5) Where a service box, fusible switch, circuit breaker, or panelboard is marked for continuous operation at 80 percent of the ampere rating of its overcurrent devices, the continuous load as determined from the calculated load shall not exceed:

- (a) 80 percent of the rating of the circuit where the ampacity of the conductors is based on Columns 2, 3, or 4 of Tables 2 or 4; or
- (b) 70 percent of the rating of the circuit where the ampacity of the conductors is based on Columns 2, 3, or 4 of Tables 1 or 3.

(6) If other derating factors are applied to reduce the conductor ampacity, the conductor size shall be the greater of that so determined or that determined by Subrules (4) or (5).

#### 8-106 Use of Demand Factors

(1) The size of conductors and switches computed in accordance with this Section shall be the minimum used except that, if the next smaller standard size in common use has an ampacity not more than 5 per cent less than this minimum, the inspection department may, at its discretion, permit the use of the smaller size.

(2) In any case other than a service calculated in accordance with Rules 8-200 and 8-202, where the design of an installation is based on requirements in excess of those given in this Section, the service and feeder capacities shall be increased accordingly.

(3) Where two or more loads are so installed that only one can be used at any one time, the one providing the greatest demand shall be used in determining the calculated demand.

(4) Where it is known that electric space heating and air conditioning loads are installed and will not be used simultaneously, whichever is the greater load shall be used in calculating the demand.

(5) Where a feeder supplies loads of a cyclic or similar nature such that the maximum connected load will not be supplied at the same time, the ampacity of the feeder conductors may be based on the maximum load that may be connected at any one time.

(6) The ampacity of conductors of feeders or branch circuits shall be in accordance with the Section(s) dealing with the respective equipment being supplied.

(7) Notwithstanding the requirements of this Section, the ampacity of the conductors of a feeder, or of a branch circuit, need not exceed the ampacity of the conductors of the service, or of the feeder from which they are supplied.

(8) Where additional loads are to be added to an existing service or feeder, the augmented load may be calculated by adding the sum of the additional loads, with demand factors as permitted by this Code, to the maximum demand load of the existing installation as measured over the most recent 12 month period, but the new calculated load shall not exceed 80 per cent of the ampacity of the conductors.

#### 8-108 Number of Branch Circuit Positions

(1) For a single dwelling, the panelboard shall provide space for at least the equivalent of the following number of 120 volt branch circuit overcurrent devices, including space for two 35 ampere double-pole overcurrent devices:

- (a) Sixteen—of which at least half shall be double-pole, where the calculated ampacity of the service or feeder conductors does not exceed 60 amperes;

(b) Twenty-four—of which at least half shall be double-pole;

(i) Where the calculated ampacity of the service or feeder conductors exceeds 60 amperes but does not exceed 100 amperes; or

(ii) Where the calculated ampacity of the service or feeder conductors exceeds 100 amperes but does not exceed 125 amperes and provision is made for a central electric furnace;

(c) Thirty—of which at least half shall be double-pole;

(i) Where the calculated ampacity of the service or feeder conductors exceeds 100 amperes but does not exceed 125 amperes; or

(ii) Where the calculated ampacity of the service or feeder conductors exceeds 125 amperes but does not exceed 200 amperes and provision is made for a central furnace;

(d) Forty—of which at least half shall be double-pole, where the required ampacity of the service or feeder conductors exceeds 125 amperes and the dwelling is not heated by a central furnace.

(2) Notwithstanding Subrule (1) sufficient spaces for overcurrent devices shall be provided in the panelboard for the two 35 amperes double-pole overcurrent devices and for all other overcurrent devices, and at least two additional spaces shall be left for future overcurrent devices.

(3) For a dwelling unit in an apartment or similar multi-dwelling building, the panelboard shall provide space for at least the equivalent of the following number of 120 volts branch circuit overcurrent devices, including space for one 35 amperes double-pole overcurrent device:

(a) Eight—where the required ampacity of the feeder conductors supplying the dwelling unit does not exceed 60 amperes;

(b) Twelve—where the required ampacity of the feeder conductors supplying the dwelling unit exceeds 60 amperes.

(4) Where space is provided in the panelboard specified in Subrules (2) and (3) for 120/240 volt three-wire branch circuits for which overcurrent protection shall be a minimum of 35 amperes, the fuseholders shall be installed at the time of installation of the panelboard.

#### 8-110 Determination of Areas

(1) The living area designated in Rule 8-200 (1) (a) (i), and (ii) shall be determined from the outside dimensions of the ground floor of the dwelling plus 75 per cent of the basement area based on the inside

dimensions, plus any area which might normally be used for living purposes on the upper floors.

(2) Where necessary to obtain outside dimensions for dwelling units of row housing they shall be measured from the outside faces of walls where possible and from the inside faces where outside faces are not available.

(3) The living area designated in Rule 8-202 (1) (a), (i), (ii), and (iii) shall be based on the interior dimensions of each dwelling unit.

### Services and Feeders

#### 8-200 Single Dwellings

(1) The minimum ampacity of service conductors or of feeder conductors supplying a single dwelling shall be based on the greater of Paragraph (a) or (b):

(a) (i) A basic load of 5,000 watts for the first 90 square metres of living area (see Rule 8-110); plus

(ii) An additional 1,000 watts for each 90 square metres or portion thereof in excess of 90 square metres; plus

(iii) Any electric space heating loads provided for with demand factors as permitted in Section 62 plus any air conditioning loads provided for with individual ratings in excess of 1,500 volt-amperes with a demand factor of 100 per cent, subject to Rule 8-106(4); plus

(iv) Any electric range load provided for as follows: 6,000 watts for a single range having a rating of 12 kilowatts or less, plus 40 per cent of the amount by which the rating of the range exceeds 12 kilowatts; plus

(v) Any electric water heaters for swimming pools, hot tubs, or spas with a demand factor of 100 per cent; plus

(vi) Any loads provided for in addition to those outlined in Paragraphs (i) to (iv) inclusive at 25 per cent of the rating of each load with a rating in excess of 1,500 watts if an electric range has been provided for, or 100 per cent of the rating of each load with a rating in excess of 1,500 watts up to a total of 6,000 watts, plus 25 per cent of the load in excess of 6,000 watts if an electric range has not been provided for.

(b) (i) 100 amperes where the floor area, exclusive of basement floor area, based on outside dimensions, subject to Rule 8-110 (2), is 80 square metres or more; or

(ii) 60 amperes where the floor area, exclusive of basement floor area, based on outside

dimensions, subject to Rule 8-110(2), is less than 80 square metres.

(2) The minimum ampacity of service conductors or of feeder conductors from a main service supplying two or more dwelling units of row-housing shall be based on:

(a) Subrule (1), excluding any electric space heating loads and any air conditioning loads, with application of demand factors to the loads as required by Rule 8-202 (2) (a) (i) to (v) inclusive; plus

(b) The requirements of Rule 8-202(2)(b), (c) and (d).

(3) The total load calculated in accordance with either Subrule (1) or (2) shall not be considered to be a continuous load for application of Rule 8-104.

(4) The demand calculation made under Subrule (1) shall always include provision for at least one electric range.

#### 8-202 Apartments and Similar Multi-Dwelling Buildings

(1) The minimum ampacity of service conductors or of feeder conductors from a main service supplying loads in dwelling units shall be the greater of Paragraphs (a) or (b):

(a) (i) A basic load of 3,500 watts for the first 45 square metres of living area (see Rule 8-110); plus

(ii) An additional 1,500 watts for the second 45 square metres or portion thereof; plus

(iii) An additional 1,000 watts for each additional 90 square metres or portion thereof in excess of the initial 90 square metres; plus

(iv) Any electric space heating loads provided for with demand factors as permitted in Section 62 plus any air-conditioning loads provided for with individual ratings in excess of 1,500 volt-amperes with a demand factor of 100 per cent, subject to Rule 8-106(4); plus

(v) Any electric range load provided for as follows: 6,000 watts for a single range having a rating of 12 kilowatts or less, plus 40 per cent of the amount by which the rating of the range exceeds 12 kilowatts; plus

(vi) Any loads provided for in addition to those outlined in Subparagraphs (i) to (v) inclusive at 25 per cent of the rating of each load with a rating in excess of 1,500 watts if an electric range has been provided for, or 100 per cent of the rating of each load with a rating in

excess of 1,500 watts up to a total of 6,000 watts plus 25 per cent of the load in excess of 6,000 watts if an electric range has not been provided for;

(b) 60 amperes.

(2) The total load calculated in accordance with Subrule (1) shall not be considered to be a continuous load for the application of Rule 8-104.

(3) The minimum ampacity of service conductors or of feeder conductors from a main service supplying two or more dwelling units shall be based on Subrule (1) and the following:

(a) Excluding any electric space heating loads and any air conditioning loads, the load shall be considered to be:

(i) 100 per cent of the load in the unit having the heaviest load; plus

(ii) 65 per cent of the sum of the loads in the next two units having the next heaviest load; plus

(iii) 40 per cent of the sum of the loads in the next two units having the next heaviest load; plus

(iv) 25 per cent of the sum of the loads in the next 15 units having the next heaviest load; plus

(v) 10 per cent of the sum of the loads in the remaining units;

(b) If electric space heating is used, the sum of all the space heating loads, as determined in accordance with the requirements of Section 62, shall be added to the load determined in accordance with Paragraph (a), subject to Rule 8-106(4);

(c) If air-conditioning is used, the amount by which the sum of all the air-conditioning loads exceed 1,500 volt amperes shall be added, with a demand factor of 100 per cent, to the load determined in accordance with Paragraphs (a) and (b), subject to Rule 8-106(4);

(d) In addition, any lighting, heating and power loads not located in dwelling units shall be added with a demand factor of 75 per cent.

(4) The ampacity of feeder conductors from a service supplying loads not located in dwelling units shall be not less than the rating of the equipment installed with demand factors as permitted by this Code.

(5) Where an electric range is not provided, the minimum ampacity determination in Subrules (1) and (3) shall be made on the basis of a range rated at 12 kilowatts being installed.

**8-204 Schools**

(1) The minimum ampacity of service or feeder conductors shall be based on the following:

- (a) A basic load of 50 watts per square metre of classroom area; plus
- (b) 10 watts per square metre of the remaining area of the building based on the outside dimensions; plus
- (c) Electric space heating, air-conditioning and power loads based on the rating of the equipment installed.

(2) Demand factors may be applied as follows:

- (a) For a building with an area up to and including 900 square metres based on the outside dimensions:

- (i) As permitted in Section 62 for any electric space heating loads provided for; and

- (ii) 75 per cent for the balance of the load;

- (b) For a building with an area exceeding 900 square metres based on the outside dimensions:

- (i) As permitted in Section 62 for any electric space heating loads provided for; and

- (ii) The balance of the load may be divided by the number of square metres to obtain a load-per-square-metre rating, and the demand load may be considered to be the sum of:

- (A) 75 per cent of the load per square metre multiplied by 900; and

- (B) 50 per cent of the load per square metre multiplied by the area of the building in excess of 900 square metres.

**8-206 Hospitals**

(1) The minimum ampacity of service or feeder conductors shall be based on the following:

- (a) A basic load of 20 watts per square metre of the area of the building based on the outside dimensions; plus
- (b) 100 watts per square metre for high intensity area, such as operating rooms; plus
- (c) Electric space heating, air-conditioning and power loads based on the rating of the equipment installed.

(2) Demand factors may be applied as follows:

- (a) For a building with an area up to and including 900 square metres based on the outside dimensions:

- (i) As permitted in Section 62 for any electrical space heating loads provided for; and

- (ii) 80 per cent for the balance of the load;

- (b) For a building with an area exceeding 900 square metres based on the outside dimensions:

- (i) As permitted in Section 62 for any electric space heating loads provided for; and

- (ii) The balance of the load may be divided by the number of square metres to obtain a load-per-square-metre rating and the demand load may be considered to be the sum of:

- (A) 80 per cent of the load per square metre multiplied by 900; and

- (B) 65 per cent of the load per square metre multiplied by the area of the building in excess of 900 square metres.

**8-208 Hotels, Motels, Dormitories and Buildings of Similar Occupancy**

(1) The minimum ampacity of service or feeder conductors shall be based on the following:

- (a) A basic load of 20 watts per square metre of the area of the building based on the outside dimensions; plus

- (b) Lighting loads for special areas such as ballrooms, based on the rating of the equipment installed; plus

- (c) Electric space heating, air-conditioning and power loads based on the rating of the equipment installed.

(2) Demand factors may be applied as follows:

- (a) For a building with an area up to and including 900 square metres based on the outside dimensions:

- (i) As permitted in Section 62 for any electric space heating loads provided for; and

- (ii) 80 per cent for the balance of the load;

- (b) For a building with an area exceeding 900 square metres based on the outside dimensions:

- (i) As permitted in Section 62 for any electric space heating loads provided for; and

- (ii) The balance of the load may be divided by the number of square metres to obtain a load-per-square-metre rating and the

demand load may be considered to be the sum of:

- (A) 80 per cent of the load per square metre multiplied by 900; and
- (B) 65 per cent of the load per square metre multiplied by the area of the building in excess of 900 square metres.

**8-210 Other Types of Occupancy.** The minimum ampacity of service or feeder conductors for the types of occupancies specified in Table 14 shall be based on the following:

- (a) A basic load to be calculated on the basis of watts per square metre required by Table 14 for the area served based on the outside dimensions, with application of demand factors as indicated therein; plus
- (b) Special loads such as electric space heating, air-conditioning, power loads, show window lighting, stage lighting, etc., based on the rating of the equipment installed with such demand factors as are permitted by this Code.

**8-212 Special Lighting Circuits.** Where a panel-board is supplying special types of lighting, such as exit lights or emergency lights, which may be located throughout a building so that it is not possible to calculate the area served, the connected load of the circuits involved shall be used in determining a feeder size.

### Branch Circuits

#### 8-300 Branch Circuits Supplying Electric Ranges

(1) Conductors of a branch circuit supplying a range in a residential occupancy shall be considered as having a demand of:

- (a) 8 kilowatts where the rating of the range does not exceed 12 kilowatts; or
- (b) 8 kilowatts plus 40 per cent of the amount that the rating of the range exceeds 12 kilowatts.

(2) For the purpose of Subrule (1) two or more separate built-in cooking units may be considered as one range.

(3) For ranges or cooking units installed in commercial, industrial and institutional establishments, the demand shall be considered as not less than the rating.

(4) The demand loads given in this Rule shall not apply to cord-connected hot-plates, rangettes or other appliances.

#### 8-302 Connected Loads

(1) For show window lighting installations, the demand load shall be determined with reference to the measurement along the base of the window and on the assumption that the requirement will be at least 650 watts per metre or, where circumstances warrant, such lower number of watts per metre as is lawful under Rule 2-030.

(2) Notwithstanding Rule 8-104(3), a load of a cycling or intermittent nature can be classified as continuous.

(3) The total connected load of a branch circuit feeding one or more units of data processing equipment shall be considered to be a continuous load for the application of Rule 8-104.

(4) Branch circuits supplying loads which are not specifically permitted to have a lower demand factor in this or other Rules of this Code shall not be allowed a demand factor of less than 100 per cent or such lower percentage as is lawful under Rule 2-030.

**8-304 Minimum Number of 15 Ampere Branch Circuits.** The minimum number of 15 ampere branch circuits to be provided for in an installation shall be calculated on the basis of a maximum loading of 12 amperes for each such branch circuit.

### Automobile Heater Receptacles

#### 8-400 Branch Circuits and Feeders Supplying Automobile Heater Receptacles

(1) In the application of this Rule, the following definitions apply:

- (a) "Restricted" means restricted to the engine block heater only and the use of an in-car heater is not permitted; and
- (b) "Controlled" means controlled by a sequencing time switch, peak load type of controller, or other acceptable means of control.

(2) At least one branch circuit protected by an over-current device rated or set at not more than 15 amperes shall be provided for each duplex receptacle or for every two single receptacles.

(3) Where the loading in each parking space or stall is not restricted or controlled, a separate branch circuit shall be provided for each parking space or stall and the feeder or service conductor shall be considered as having a demand load as follows:

No. of Automobile Spaces or Stalls	Demand Load Per Space or Stall (Watts)
First.....	30 1,200
Next.....	30 1,000
All Over.....	60 800

(4) Where branch circuits are provided for parking spaces or stalls in which the loading is restricted or

controlled, the feeder or service conductors shall be considered as having a demand load as follows:

No. of Automobile Spaces or Stalls	Demand Load Per Space or Stall (Watts)
First.....	30 650
Next.....	30 550
All Over.....	60 450

(5) Parking lots which may be fully occupied under normal usage shall be assigned a greater demand load per space or stall.

## SECTION 10—GROUNDING AND BONDING

### Scope and Object

#### 10-000 Scope

(1) This Section covers the protection of electrical installations by grounding and bonding.

(2) Insulating, isolating, and guarding may be used as acceptable means of affording supplemental protection to grounding or, where permitted in this Code, as a suitable alternative.

**10-002 Object.** Grounding and bonding as required by this Code shall be done in such a manner as to serve the following purposes:

- To protect life from the danger of electric shock, and property from damage, by bonding to ground, non-current-carrying metal systems;
- To limit the voltage upon a circuit when exposed to higher voltages than that for which the circuit is designed;
- In general to limit ac circuit voltages-to-ground to 150 volts or less on circuits supplying interior wiring systems;
- To facilitate the operation of electrical apparatus and systems; and
- To limit the voltage on a circuit which might otherwise occur through exposure to lighting.

### System and Circuit Grounding

**10-100 Circuits.** Circuits shall be grounded as necessary in accordance with this Section.

#### 10-102 Two-Wire Direct-Current Systems

(1) Two-wire direct-current systems supplying interior wiring and operating at not more than 300 volts or not less than 50 volts between conductors shall be grounded, unless such system is used for supplying industrial equipment in limited areas and the circuit is equipped with a ground detector.

(2) If a two-wire direct-current system operates at more than 300 volts between conductors and a neutral point can be established so that the maximum difference of voltage between the neutral point and any other point on the system does not exceed 300 volts, the neutral may be grounded.

**10-104 Three-Wire Direct-Current System.** The neutral conductor of all 3-wire direct-current systems supplying interior wiring shall be grounded.

#### 10-106 Alternating-Current Systems

(1) Except as otherwise provided for in this Code, alternating-current systems shall be grounded if:

- By so doing, their maximum voltage-to-ground does not exceed 150 volts; or
- The system incorporates a neutral conductor.

(2) Wiring systems supplied by an ungrounded supply shall be equipped with a suitable ground detection device to indicate the presence of a ground fault.

**10-108 Electric Arc Furnace Circuits.** Circuits supplying electric arc furnaces may, but need not, be grounded.

**10-110 Electric Crane Circuits.** Circuits supplying electric cranes operating over combustible fibres in Class III hazardous locations shall not be grounded.

**10-112 Isolated Circuits.** Special circuits may be supplied from the ungrounded secondaries of transformers having the primary and secondary windings separated by a grounded metal shield if:

- Installed under the provisions of other sections of this Code; or
- This is required to recognize a particular accident or fire hazard.

**10-114 Circuits of Less Than 50 Volts.** Circuits of less than 50 volts shall be grounded:

- Where run overhead outside of buildings; or
- Where supplied by transformers energized from:
  - Systems of more than 150 volts-to-ground; or
  - Ungrounded systems unless the circuits are provided in accordance with Rule 10-112.

#### 10-116 Instrument Transformer Circuits

(1) Where primary windings of current and voltage instrument transformers are connected to circuits of 300 volts or more to ground, the secondary circuits of the transformer shall be grounded.

(2) Where the transformers are on switchboards, the secondary circuits shall be grounded irrespective of the voltage of the circuits.

### Grounding Connections for Systems and Circuits

#### 10-200 Current Over Grounding and Bonding Conductors

(1) Where wiring systems, circuits, electrical equipment, arresters, cable armour, conduit, and other metal raceways are grounded as a protective measure, the grounding shall be arranged so that there is no objectionable passage of current through the grounding conductors.

(2) The temporary currents which are set up under accidental conditions while the grounding conductors are performing their intended protective functions shall not be considered as objectionable.

(3) Where through the use of multiple grounds an objectionable flow of current occurs through the grounding conductor:

- (a) One or more of the grounds shall be abandoned;
- (b) The location of the grounds shall be changed;
- (c) The continuity of the conductor between the grounding connections shall be suitably interrupted; or
- (d) Other effective action shall be taken to limit the current.

**10-202 Grounding Connections for Direct-Current Systems.** Direct-current systems which are to be grounded shall have the grounding connections made at one or more supply stations but not at individual services nor elsewhere on interior wiring.

#### 10-204 Grounding Connections for Alternating-Current Systems

(1) Alternating-current circuits which are to be grounded shall have:

- (a) A connection to a grounding electrode at each individual service, except as provided for in Rule 10-200;
- (b) The grounding connection made on the supply side of the service disconnecting means either in the service box or in other acceptable service equipment, except for areas or buildings housing livestock, the grounding connection is permitted to be made within another device specifically intended for the purpose located in the grounding circuit and not more than 3 metres from the service equipment;
- (c) At least one additional connection to a grounding electrode at the transformer or elsewhere; and

(d) No connection between the grounded circuit conductor on the load side of the service disconnecting means and the grounding electrode, except as provided for in Rule 10-208.

(2) Where the system is grounded at any point, the grounded conductor shall be run to each individual service and be not smaller than the required grounding conductor specified in Table 17 and where the grounded circuit conductor also serves as the neutral conductor, the requirements of Rule 4-022 shall be met.

(3) Where service conductors are run in parallel in separate raceways, and the system is grounded at any point, a grounded conductor shall be run in each raceway and notwithstanding the requirements of Rule 12-108, the total ampacity of all grounded conductors is permitted to be not less than equivalent to the ampacity of the conductor required by Rule 4-022(3).

(4) Notwithstanding Subrule (1), for circuits that are supplied from two sources in a common enclosure or grouped together in separate enclosures and employing a tie, a single grounding electrode connection to the tie point of the grounded circuit conductors from each power source is permitted.

**10-206 Grounding Connections for Isolated Systems.** For a wiring system or circuit which is required to be grounded, and which is not conductively connected to an exterior distribution system, the grounding connection shall be made at the transformer, or other source of supply, or on the supply side of the first switch controlling the system, and:

- (a) The grounding conductor shall be not smaller than that specified in Table 17; and
- (b) If two or more systems are employed, a common system grounding conductor shall be installed unless separate grounding is supplied for each such system, in which case the grounding for the individual systems shall be interconnected.

#### 10-208 Grounding Connections for Two or More Buildings or Structures Supplied from a Single Service

Where two or more buildings or structures are supplied from a single service:

- (a) The grounded circuit conductor at each of the buildings or structures shall be connected to a grounding electrode and bonded to the non-current-carrying metal parts of the electrical equipment; or
- (b) Except for buildings housing livestock, the non-current-carrying metal parts of the electrical equipment in or on the building or structure are permitted to be bonded to ground by a bonding conductor run with the feeder or branch circuit conductors.

**10-210 Conductor to be Grounded**

(1) For alternating-current wiring systems, the conductor to be grounded shall be as follows:

- (a) Single-phase, 2-wire—the identified conductor;
- (b) Single-phase, 3-wire—the identified neutral conductor;
- (c) Multi-phase systems having one wire common to all phases—the identified neutral conductor;
- (d) Multi-phase systems having one phase grounded—the identified conductor;
- (e) Multi-phase systems in which one phase is used as in Paragraph (b)—the identified conductor.

(2) In multi-phase systems in which one phase is used as a single-phase 3-wire system, only one phase shall be grounded.

**Conductor Enclosure Bonding**

**10-300 Enclosure for Service Conductors.** Metal service raceways, service cable sheaths, or armouring shall be bonded to ground.

**10-302 Other Conducting Enclosures**

(1) Metal enclosures for conductors, other than those referred to in Rule 10-300, shall be bonded to ground except:

- (a) In runs of less than 7.5 metres that are free from probable contact with ground, grounded metal, metal lath, or conductive thermal insulation, and that, where within reach from grounded surfaces, are guarded against contact by persons; and
- (b) Runs used for physical protective sleeving of less than 1.5 metres in length, where the installation method is such that it is improbable they will become energized.

(2) Where single-conductor metal sheathed or armoured cables are installed in raceways of insulating material, in order to prevent the flow of sheath currents in accordance with Rule 4-008(1)(c), the cables shall:

- (a) Be in separate raceways or supplied with suitable continuous non-conductive jackets;
- (b) Have their sheaths or armour bonded together and bonded to ground at the supply end; and
- (c) Thereafter have their sheaths or armour isolated from each other and from ground.

**Equipment Bonding**

**10-400 Fixed Equipment, General.** Exposed, non-current-carrying metal parts of fixed equipment shall be bonded to ground if the equipment is:

- (a) Supplied by means of metal-enclosed wiring;
- (b) Supplied by means of wiring which contains a grounding conductor;
- (c) Located in a wet location and is not isolated;
- (d) Located within reach of a person who can make contact with any grounded surface or object;
- (e) Located within reach of a person standing on the ground;
- (f) In a hazardous location;
- (g) In electrical contact with metal, metal foil or metal lath; or
- (h) To operate with any terminal at more than 150 volts-to-ground, except:
  - (i) Enclosures for switches or circuit breakers that are accessible to qualified persons only;
  - (ii) Metal frames of electrically heated devices that are permanently and effectively insulated from the ground where the operation is lawful under Rule 2-030, and
  - (iii) Transformers mounted on wooden poles at a height of more than 2.5 metres from the ground where acceptable and where in compliance with applicable codes and standards under a rule or by-law of the supply authority concerning the bonding and grounding of transformers.

**10-402 Fixed Equipment, Specific**

(1) Exposed, non-current-carrying metal parts of the following kinds of fixed equipment shall be grounded:

- (a) Frames of motors operating at more than 30 volts;
- (b) Cases of controllers for motors;
- (c) Electric equipment of elevators and cranes;
- (d) Electrical equipment in garages, theatres and motion picture studios, except pendent lamp-holders on circuits of not more than 150 volts-to-ground;
- (e) Motion-picture projection equipment;
- (f) Electric signs and associated equipment;
- (g) Generator frames in an electrically-operated organ, unless the generator is effectively insulated from the ground;
- (h) Switchboard frames and structures supporting switching equipment, except that frames of

direct-current, single polarity switchboards are not required to be bonded to ground if effectively insulated;

- (i) X-ray equipment used in therapy;
  - (j) Equipment supplied by Class 1 and 2 circuits falling within the scope of Section 16 where such circuits require grounding to meet the intent of Rules 10-100 to 10-114.
  - (k) Data processing equipment.
- (2) All non-current-carrying metal parts of lighting fixtures and associated equipment that could become energized shall be bonded to ground if they are:

- (a) Exposed; or
  - (b) Not exposed, but are in contact with exposed metal parts.
- (3) Electrical equipment, such as livestock waterers, installed in feedlots and open feeding areas shall be bonded to ground by a separate stranded copper bonding conductor of at least No. 6 AWG terminating at a point where the branch circuit receives its supply.

#### 10-404 In Non-Metallic Wiring Systems

- (1) Where a non-metallic wiring system is used:
  - (a) A ground connection shall be provided at all outlets; and
  - (b) Metal boxes shall be grounded.
- (2) Where conductors are run in parallel in multiple raceways as permitted in Rule 12-108, a grounding conductor shall be run in each raceway.
- (3) All interior metal gas piping which may become energized shall be made electrically continuous and shall be bonded in accordance with the requirements of Subrule (2).

#### 10-406 Non-electrical Equipment

- (1) The following metal parts of non-electrical equipment shall be bonded to ground:
  - (a) Frames and tracks of electrically operated cranes;
  - (b) The metal frame of a non-electrically driven elevator car to which electric conductors are attached;
  - (c) Hand operated metal shifting ropes or cables of electric elevators;
  - (d) Metal enclosures such as partitions, grill work, etc., around equipment carrying voltages in excess of 750 volts between conductors.
- (2) Where a metallic water supply system is used

in connection with premises supplied with electric power:

- (a) The water supply system shall be bonded to the system grounding conductor by means of a copper bonding conductor not smaller than No. 6 AWG; and
- (b) The bonding conductor shall be attached to the water supply system:
  - (i) At a location as near to the consumer's electrical service entrance as is practicable; and
  - (ii) At a location where a sub-feeder enters a barn or other building.
- (3) Each metallic waste water piping system in the building shall be grounded by bonding it to the interior metallic water supply system by a copper bonding jumper of not less than No. 6 AWG.
- (4) All interior metal gas piping which may become energized shall be made electrically continuous and shall be bonded in accordance with the requirements of Subrule (2).

(5) In buildings housing livestock all metallic water pipes, stanchions, water-bowls, vacuum lines and other metals shall be grounded by a separate stranded copper grounding conductor not smaller than No. 6 AWG.

(6) In rooms containing data processing and similar systems, having raised floors with metal supports and wiring under the raised floors in accordance with Rule 12-020(1), at least every fourth pedestal shall be bonded to ground by a minimum No. 6 AWG copper conductor.

#### 10-408 Portable Equipment

- (1) Exposed non-current-carrying metal parts of portable equipment shall be bonded to ground under the following conditions:
  - (a) When used in hazardous locations unless supplied through an isolating transformer having an ungrounded secondary of not over 50 volts;
  - (b) When the equipment is used in damp or wet locations, or by persons standing on the ground on metal floors, inside metal tanks or boilers, except where the equipment is supplied through an isolating transformer having an ungrounded secondary of not more than 50 volts;
  - (c) When the equipment operates with any terminal at more than 150 volts-to-ground except,
    - (i) Motors where guarded; or
    - (ii) By special permission, the metal frames of electrically heated appliances that are impractical to ground but which are per-

manently and effectively insulated from ground.

(2) Exposed non-current-carrying metal parts of enclosures of portable X-ray equipment used in therapy shall be bonded to ground except where the failure to bond to ground is lawful under Rule 2-030.

(3) Notwithstanding Subrules (1) and (2), tools and appliances having double insulation or equivalent protection, and so marked, need not be bonded to ground.

(4) Notwithstanding Subrule (1), tools and appliances required to have provision for grounding need not be bonded to ground:

- (a) When used only in a location where reliable grounding cannot be obtained; and
- (b) They are supplied from a double insulated portable ground fault circuit interrupter of the Class A type.

**10-410 Instrument Transformer Cases.** The cases and frames of instrument transformers shall be bonded to ground but where the primary circuit of a current transformer is not over 150 volts-to-ground and the transformer is used solely to supply current to meters, the case or frame of the current transformer need not be bonded to ground.

**10-412 Cases of Instruments, Meters, and Relays—Operating Voltage 750 Volts or Less**

- (1) Where instruments, meters, and relays:
  - (a) Are not located on switchboards;
  - (b) Operate with windings or working parts at between 300 and 750 volts-to-ground; and
  - (c) Are accessible to other than qualified persons;

the cases and other exposed metal parts of the instruments, meters, and relays shall be bonded to ground.

- (2) Where instruments, meters, and relays:
  - (a) Operate with windings or working parts at 750 volts or less to ground;
  - (b) Are on switchboards having no live parts on the front of the panels; and
  - (c) Are operated from current and potential transformers or are connected directly in the circuit;

the cases of the instruments, meters, and relays shall be bonded to ground.

- (3) Where instruments, meters, and relays:
  - (a) Operate with windings or working parts at 750 volts or less to ground;

(b) Are on switchboards having exposed live parts on the front of the panels; and

(c) Operate from current and potential transformers or are connected directly in the circuit;

the cases of the instruments, meters, and relays shall not be bonded to ground and, where the voltage-to-ground exceeds 150 volts, mats of insulating rubber or other suitable floor-insulation shall be provided for the operator.

**10-414 Cases of Instruments, Meters, and Relays—Operating Voltage Over 750 volts.** Where instruments meters and relays have current-carrying parts over 750 volts-to-ground, they shall be isolated by elevation or protected by acceptable barriers, grounded metal or insulating covers, or guards and their cases shall not be bonded to ground, except that in electrostatic ground detectors the internal ground segments of the instrument shall be connected to the instrument case and bonded to ground, and the detector shall be isolated by elevation.

**Methods of Grounding**

**10-500 Effective Grounding.** The path to ground from circuits, equipment, or conductor enclosures shall be permanent and continuous and shall have ample ampacity to conduct safely any currents liable to be imposed on it, and shall have impedance sufficiently low to limit the voltage above ground, and to facilitate the operation of the over-current devices in the circuit.

**10-502 Common Grounding Conductor.** The grounding conductor for circuits is permitted to be used as a bonding conductor for equipment, conduit, and other metal raceways, or enclosures for conductors, including service conduit or cable sheath and service equipment.

**10-504 Common Grounding Electrode.** Where the alternating-current system is connected to a grounding electrode in or at a building as specified in Rules 10-204 and 10-208, the same electrode may be used to ground conductor enclosures and equipment in or on that building.

**10-506 Underground Service**

(1) Where an underground service cable is served from a continuous underground metal sheathed cable system and the sheath or armour of the service cable is connected to the underground system, the sheath or armour of the service cable is not required to be bonded to ground at the building if it is insulated from the interior conduit or piping.

(2) Where a metal sheathed service cable is served from a continuous underground metal sheathed cable system, is bonded to the underground system and is contained in an underground service conduit, the conduit is not required to be bonded to ground at the

building if it is insulated from the interior conduit or piping.

**10-508 Short Section of Raceway.** Isolated sections of metal raceway or cable armour, if required to be bonded to ground shall preferably be bonded to ground by connecting to other grounded raceway or armour, but are permitted to be bonded to ground in accordance with Rule 10-510.

#### 10-510 Fixed Equipment

(1) Fixed equipment as specified in Rules 10-400 and 10-402 shall, subject to the provisions of Rule 10-802 be bonded to ground in one of the following ways:

- (a) An effective metallic connection to grounded metal raceways, metal sheath, or cable armour except:
  - (i) Armour as specified in Subrules (2) and (3), or
  - (ii) Sheathed of mineral-insulated cable when of stainless steel as specified in Subrule (4);
- (b) A bonding conductor which is run with circuit conductors as a part of a cable assembly and which may be uninsulated, but, if provided with an individual covering, the covering shall be finished to show a green colour or a green/yellow combination.
- (c) A separate bonding conductor installed in the same manner as a bonding conductor for conduit and the like; or
- (d) Other acceptable means where such means are lawful under Rule 2-030.

(2) The armour of those constructions of armoured cables incorporating a bonding conductor shall not be considered as fulfilling the requirements of a bonding conductor for the purpose of this Rule, and the bonding conductor provided in these cables shall comply with Subrule (1)(b).

(3) The armour of flexible metal conduit and liquid-tight flexible metal conduit shall not be considered as fulfilling the requirements of a bonding conductor for the purposes of this Rule, and a separate bonding conductor shall run within the conduit.

(4) The sheath of mineral-insulated cable having a stainless steel sheath shall not be considered as fulfilling the requirements of a bonding conductor for the purposes of this Rule and bonding shall be by one of the methods specified in Subrule (1)(b), (c) or (d).

**10-512 Equipment on Structural Metal.** Electrical equipment secured to and in contact with the grounded structural metal frame of a building, shall be deemed to be bonded to ground.

**10-514 Portable Equipment.** Where the non-current-carrying metal parts of portable equipment are required to be bonded to ground, the bonding shall be obtained by:

- (a) Connection of the equipment to a permanent outlet provided with a grounding medium as required by Rule 10-510 for fixed equipment;
- (b) The use of one of the following means to obtain continuity between the non-current-carrying metal parts of the equipment and the permanent grounding medium:
  - (i) The metal enclosure of the conductors feeding the equipment; or
  - (ii) A bare conductor, or a green, or green yellow combination, coloured conductor run with the circuit conductors in flexible cords or power supply cables; and
- (c) The use of an approved multi-prong plug by which grounding is automatically established.

#### 10-516 Pendent Equipment

(1) Where the non-current-carrying metal parts of pendent equipment are required to be bonded to ground, the bonding shall be obtained by:

- (a) Connection of the equipment to a permanent outlet provided with a grounding medium as required by Rule 10-510 for fixed equipment; and
- (b) The use of one of the following means to obtain continuity between the non-current-carrying metal parts of the equipment and the permanent grounding medium:
  - (i) The metal enclosure of the conductors feeding the equipment; or
  - (ii) A bare conductor, or a green, or green yellow combination, coloured conductor run with the circuit conductors in flexible cords or power supply cables.

(2) Chains that support electric equipment shall not be used as a means of bonding to ground.

**10-517 Pad Mounted Transformers.** All exposed non-current-carrying metal parts of pad mounted transformers, their enclosures, etc., shall be grounded by a ground electrode consisting of four or more  $\frac{3}{4}$  inch  $\times$  10 foot ground rods driven so as to be not less than 2 metres apart, and suitably interconnected with an annealed copper conductor not smaller than No. 2/0 AWG to form a complete loop around the equipment at a distance of at least 1 metre from any part of the equipment; and

- (a) The ground electrode shall be connected to the non-current-carrying metal parts by a copper conductor of:
  - (i) Not less than No. 2/0 AWG where the

available short circuit current is 1,000 amperes or more; or

- (ii) Not less than No. 2 AWG where the available short circuit current is less than 1,000 amperes; and

(b) Notwithstanding Paragraph (a) (ii), any grounding conductor that enters the earth shall be not smaller than No. 2/0 AWG;

(c) System and equipment grounding conductors shall be effectively disconnected.

#### 10-518 Grounding Equipment to Circuit Conductor

(1) The grounded circuit conductor on the load side of the connection to ground shall not be used for bonding equipment, cable armour, or metal raceways to ground unless the use is lawful under Rule 2-030.

(2) The grounded service conductor on the supply side of the service disconnecting means is permitted to be used for bonding to ground the metal meter mounting devices and service equipment, and where the grounded service conductor passes through the meter mounting device it shall be bonded to the meter mounting device.

(3) Notwithstanding Subrule (2), the bonding of the meter mounting device to the grounded service conductor is not permitted at a building where a device is installed in the grounding conductor as permitted in Rules 10-204(1)(b) and 10-806(1).

**10-520 Electrolytic Type Water Heaters.** Electrolytic type water heaters connected to a grounded single-phase ac circuit may be used if:

- (a) A copper grounding conductor of a size given in the second column of Table 16 but in no case less than No. 12 AWG connects the frame of the heater to the grounded conductor of the circuit at the service box; and
- (b) The grounded conductor of the circuit is grounded at the service box to a grounding system.

#### Bonding Methods

**10-600 Clean Surfaces.** Where a non-conductive protective coating such as paint or enamel is used on the equipment, conduit, couplings or fittings, such coating shall be removed from threads and other contact surfaces in order to ensure a good electrical connection.

**10-602 Bonding at Service Equipment.** The electrical continuity of the grounding circuit at the service equipment shall be assured by one of the means given in Rule 10-604 for the following equipment and enclosures if metallic:

- (a) Service raceways or service armour or sheaths;

(b) All service equipment enclosures containing service entrance conductors including meter fittings, boxes, or the like, interposed in the service raceway or armour;

(c) Any conduit or armour which forms part of the grounding conductor to the service raceway.

**10-604 Means of Assuring Continuity at Service Equipment.** Electrical continuity at service equipment shall be assured by:

(a) The use of threaded couplings and threaded bosses on enclosures with joints made up tight where metallic rigid conduit is used;

(b) The use of threadless couplings made up tight where electrical metallic tubing is used;

(c) The use of bonding jumpers meeting the requirements of Rules 10-614 and 10-906; or

(d) Other devices (not standard locknuts and bushings) such as grounding bushings specifically approved for the purpose, equipped with bonding jumpers meeting the requirements of Rule 10-614.

**10-606 Metal Armour or Tape of Service Cable.** Where service cable has an uninsulated grounded service conductor in continuous electrical contact with its metallic armour or tape, the metal covering shall be considered to be adequately grounded.

**10-608 Bonding at Other than Service Equipment.** The electrical continuity of metal raceway, metal-sheathed, or armoured cable shall be assured by one of the methods specified in paragraphs (a), (b), (c), and (d) of Rule 10-604, or by the use of:

(a) Threadless fittings, made up tight with conduit or armoured cable;

(b) Two locknuts, one inside and one outside of boxes and cabinets; or

(c) One locknut and a metal conduit bushing provided the bushing can be installed so that it is mechanically secure and makes positive contact with the inside surface of the box or cabinet.

#### 10-610 Loosely Jointed Metal Raceways

(1) Expansion joints and telescoping sections of raceways shall be made electrically continuous by bonding jumpers or other approved means.

(2) Metal trough raceways used in connection with sound recording and reproducing equipment made up in sections, shall contain a grounding conductor to which each section shall be bonded.

**10-612 Hazardous Locations.** In hazardous locations and in non-hazardous locations from which hazardous locations are supplied, the electrical continuity of metallic raceways, boxes and the like, shall be assured by one of the methods specified in Paragraphs (a), (c), and (d) of Rule 10-604.

**10-614 Bonding Jumpers**

- (1) Bonding jumpers shall be:
  - (a) Of copper or other corrosion-resistant material;
  - (b) Of sufficient size to have an ampacity not less than that required for the corresponding grounding conductor except that for service raceways this ampacity may be determined on the basis of:
    - (i) Table 41, where the conducting path is supplemented by:
      - (A) The use of two lock nuts and a grounding bushing; or
      - (B) The use of a conduit or cable connector with a built-in shoulder complete with one lock nut and grounding bushing; or
    - (ii) The maximum size that the terminal on the grounding bushing will accommodate where single conductor metallic-sheathed cables are employed and the sheaths are attached to a grounded metallic plate by connectors, each fitted with a locknut and a grounding bushing;
  - (c) Attached to cabinets and similar equipment in a manner specified in Rule 10-906; and
  - (d) Attached in a manner specified in Rule 10-908 where used between grounding electrodes or around water meters and the like.
- (2) Straps when used for bonding non-current-carrying metal parts shall be not less than 19 millimetres in width and not less than 1.4 millimetres in thickness if of steel or not less than 1.2 millimetres in thickness if of aluminum or copper.

**Grounding Electrodes****10-700 Grounding Electrodes**

- (1) The grounding electrode shall be a service water pipe from a public water main to the building, provided:
  - (a) It is continuously conductive;
  - (b) It is placed underground not less than 250 millimetres below the normal permanent moisture level; and
  - (c) The underground portion extends not less than 3 metres beyond the extremities of the building served.
- (2) Where the electrode described in Subrule (1) is not available, an independent metal water piping system shall be used, provided:

- (a) It is continuously conductive;
- (b) It is placed underground not less than 250 millimetres below the normal permanent moisture level; and
- (c) The underground portion extends not less than 3 metres beyond the extremities of the building served.
- (3) Where the electrode described in Subrule (1) is not available, a continuously conductor independent metal water piping system or the metallic casing of a pump system shall be used provided:
  - (a) The independent metal water piping system is placed underground not less than 250 millimetres below the normal permanent moisture level and the underground portion extends not less than 3 metres beyond the extremities of the building served; and
  - (b) The metal casing of the pump system is not less than 75 millimetres in diameter and extends at least 15 metres below the well head.
- (4) Where more than one of the grounding means listed in this Rule exist at a building, they shall be bonded together with a conductor sized as for a system grounding conductor required by Rule 10-812.
- (5) In any case where two or more of the grounding mediums listed in this Rule appear at premises, the main grounding electrode for the system shall be selected in the order of preference outlined with bonding provided between the available electrodes in accordance with Rule 10-812.

**10-702 Artificial Grounding Electrodes**

- (1) An artificial grounding electrode shall consist of a concrete encased electrode, rod electrode, or plate electrode, or other device acceptable for the purpose.
- (2) A concrete encased electrode shall be encased within the bottom 50 millimetres of a concrete foundation footing which is in direct contact with the earth and shall be:
  - (a) A bare copper conductor not less than 6 metres in length and of a size specified in Table 43; or
  - (b) A plate electrode which shall:
    - (i) Present not less than 0.4 square metres of surface to the concrete encasing the plate;
    - (ii) Be not less than 6 millimetres in thickness if of iron or steel; or 1.5 millimetres in thickness if of non-ferrous metal; and
    - (iii) Have a means of attachment for the system grounding conductor which shall be accessible after the concrete is poured.
- (3) A rod electrode shall consist of not less than two rods which shall:

- (a) be not less than  $\frac{5}{8}$  inch in diameter if of iron or steel, or  $\frac{1}{2}$  inch in diameter if of non-ferrous metal or ferrous metal clad with a non-ferrous metal;
  - (b) be preferably of one piece where less than standard commercial length;
  - (c) be not less than 3 metres in length;
  - (d) have a clean metal surface which is not covered with paint, enamel, or other poor conducting material; and
  - (e) be spaced no less than 3 metres apart.
- (4) A plate electrode shall:
- (a) present not less than 0.2 square metres of surface to exterior soil; and
  - (b) be not less than  $\frac{1}{4}$  inch in thickness if of iron or steel; or 0.06 inch if of non-ferrous metal.
- (5) An artificial grounding electrode shall be buried at least 250 millimetres below permanent ground level, as far as practicable.
- (6) An artificial grounding electrode shall be buried in a horizontal trench where rock bottom is encountered at a depth of less than 1.2 metres.
- (7) Rods comprising a rod electrode shall be driven to a depth of no less than 3 metres regardless of the size or number used, except that:
- (a) where rock bottom is encountered at a depth of 1.2 metres or more, it shall be driven to rock bottom; or
  - (b) where rock bottom is encountered at a depth of less than 1.2 metres it shall be buried in a horizontal trench and be not less than 3 metres long.
- (8) Each electrode shall be separated at least 3 metres from any other electrode including an electrode used for signal circuits, radio, lightning rods, or any other purpose.
- (9) Where any or all of the separate grounding electrodes are bonded together, the bonding conductor shall be:
- (a) A copper conductor not smaller than No. 6 AWG;
  - (b) Installed so as not to be subject to mechanical damage; and
  - (c) Attached to electrodes for power systems in accordance with Rule 10-908 and preferably be attached to other electrodes in the same manner.
- 10-704 Railway Track as Electrodes.** Rails or other grounded conductors of electric railway cir-

cuits shall not be used as a ground for other than railway lightning arresters and railway equipment, metal conduit, armoured or metal sheathed cable, metal raceway, and the like; and in no case shall such rails or other grounded conductors of railway circuits be used for grounding interior wiring systems other than those supplied from the railway circuit itself.

**10-706 Spacing or Bonding Electrical and Lightning Rod Systems.** Where practicable, a clearance of at least 2 metres shall be provided between lightning rods conductors and electrical conductors and equipment but, where this separation is not possible, the ground electrodes for the two systems shall be connected together, at or below ground level, with a copper conductor of a size not less than that of the grounding conductor for the electrical system and in no case shall the bonding conductor be smaller than No. 6 AWG copper.

**10-708 Spacing and Bonding of Electrical and Communication System Grounding.** Where separate artificial electrodes are provided as the grounding means for electrical and communication systems, each electrode shall be separated at least 2 metres from any other electrode as required by Rule 10-702 (8) and these shall be bonded together in accordance with Rule 10-702 (9).

**10-710 Use of Lightning Rods.** Lightning rod conductors and driven pipes, rods, or other electrodes, excluding buried metal water-piping systems, used for grounding lightning rods shall not be used for grounding wiring systems or other electrical equipment.

### Grounding Conductors

**10-800 Continuity of Grounding and Bonding Conductor.** No automatic cutout or switch shall be placed in the grounding or bonding conductor of a wiring system unless the opening of the cutout or switch disconnects all sources of energy.

**10-802 Material for System Grounding Conductors.** The grounding conductor of a wiring system whether also used for grounding electrical equipment or not, may be insulated or bare, and shall be of copper.

**10-804 Material for Bonding Conductors.** The bonding conductor for equipment and for conduit and other metal raceways and enclosures for conductors shall be:

- (a) A conductor of copper or other corrosion-resistant material, insulated or bare;
- (b) A bus bar or steel pipe;
- (c) Rigid metal conduit, except a separate conductor as required by Subrule 10-804(a) shall be installed within the conduit where:
  - (i) the conduit is directly buried in earth;

- (ii) located in concrete or masonry slabs in contact with the earth; or
- (iii) in any location where materials having a deteriorating effect may come in contact with the conduit;
- (d) Electrical metallic tubing, except a separate conductor required by Subrule 10-804(a) shall be installed within the conduit where:
  - (i) the tubing is used in concrete or masonry slabs in contact with the earth; or
  - (ii) in any location where materials having a deteriorating effect may come in contact with the tubing;
- (e) The sheath of mineral-insulated cable that is not stainless steel or any conductor of a mineral-insulated cable if it is permanently marked at the time of installation so that it can be readily distinguished from conductors that are not used as bonding conductors, except that if the sheath is of aluminum in an underground run or in a location where materials having a deteriorating effect may come in contact with the metal, corrosion resistant protection suitable for the corrosive condition encountered shall be provided;
- (f) The sheath of aluminum-sheathed cable, but if used for underground runs or in locations where materials having a deteriorating effect may come in contact with the metal, corrosion-resistant protection suitable for the corrosive conditions encountered shall be provided; or
- (g) Other metallic raceways or cable armour as provided for in Rule 10-510.

#### 10-806 Installation of System Grounding Conductors

(1) The grounding conductor for a system shall be without joint or splice throughout its length, except in the case of bus bars, thermit welded joints, compression connectors applied with a compression tool compatible with the particular connector, or devices acceptable for connection in series with the grounding conductor.

(2) A No. 6 AWG or larger copper grounding conductor which is free from exposure to mechanical injury may be run along the surface of the building construction without metal covering or protection, if it is rigidly stapled to the construction; otherwise it shall be in conduit, electrical metallic tubing, or cable armour.

(3) A copper grounding conductor of No. 8 AWG shall be in conduit, electrical metallic tubing or cable armour.

(4) Metallic enclosures for grounding conductors shall be continuous from the point of attachment to

cabinets or equipment to the grounding electrode and shall be securely fastened to the ground clamp or fitting.

(5) Where a grounding conductor is run in the same raceway with other conductors of the system to which it is connected, it shall be insulated, except that where the length of the raceway does not exceed 15 metres between pull points and does not contain more than the equivalent of two quarter bends between pull points, an uninsulated grounding conductor may be used.

(6) Notwithstanding the requirements of Subrule (2), a grounding conductor No. 6 AWG or larger may be embedded in concrete provided that the points of emergence are so located or guarded as not to constitute exposure to mechanical injury.

#### 10-808 Installation of Equipment Bonding Conductors

(1) The bonding conductor for equipment is permitted to be spliced or tapped, but the splices or taps shall be made only within boxes, except that in the case of open wiring they are permitted to be made externally from boxes if covered with insulation.

(2) Where more than one bonding conductor enters a box, all such conductors shall be in good electrical contact with each other by securing all bonding conductors under bonding screws, or by connecting them together with an acceptable solderless connector and connecting one conductor only to the box by a bonding screw or a bonding device, and the arrangement shall be such that the disconnection or removal of a receptacle, fixture, or other device fed from the box, will not interfere with, or interrupt, the bonding continuity.

(3) Where a bonding conductor is run in the same raceway with other conductors of the system to which it is connected, it shall be insulated, except that where the length of the raceway does not exceed 15 metres and does not contain more than the equivalent of 2 quarter bends, an uninsulated bonding conductor is permitted to be used.

(4) Where rigid metal conduit or steel pipe is used as a bonding conductor, the installation shall comply with section 12.

(5) A copper bonding conductor shall:

(a) If No. 6 AWG or larger, and attached securely to the surface on which it is carried, be protected where exposed to mechanical injury; and

(b) If smaller than No. 6 AWG, or if the installation does not come within the provisions of Paragraph (a) of this Subrule, be installed and protected in the same manner as the circuit conductor for a given installation.

(6) An aluminum bonding conductor shall:

- (a) If No. 4 AWG or larger and attached securely to the surface on which it is carried, be protected where exposed to mechanical injury;
- (b) If smaller than No. 4 AWG, or if the installation does not come within the provisions of Paragraph (a) of this Subrule, be installed and protected in the same manner as the circuit conductor for a given installation.

(7) Where a separate bonding conductor supplements the bonding afforded by a ferrous metallic raceway, it shall be installed in the same raceway as the circuit conductors.

#### **10-810 Grounding Conductor Size for DC Circuits**

(1) The ampacity of the grounding conductor for a direct-current supply system or generator shall be not less than that of the largest conductor supplied by the system, except that where the grounded circuit conductor is a neutral derived from a balancer winding or a balancer set, the size of the grounding conductor shall be not less than that of the neutral conductor.

(2) The system grounding conductor shall be copper and in no case smaller than No. 8 AWG.

**10-812 Grounding Conductor Size for AC Systems and Fixed Equipment.** The size of the grounding conductor shall be:

- (a) Not less than that given in column 2 of Table 17 for an alternating-current system or for a common grounding conductor;
- (b) Not less than that given in column 2, 3, or 4 of Table 18, as applicable for a service raceway, for the metal sheath or armour of a service cable, and for service equipment, where the alternating-current system is not grounded at the premises.

#### **10-814 Bonding Conductor Size**

(1) The size of a bonding conductor shall be not less than that given in Table 16, but in no case does it need to be larger than the largest ungrounded conductor in the circuit.

(2) Notwithstanding the requirements of Rule 12-108, where circuit conductors are paralleled in separate raceways, the bonding conductor in each raceway shall be sized by dividing the rating or setting of the overcurrent device by the number of raceways and selecting from Table 16 a conductor size to satisfy this result.

**10-816 Bonding Conductor Size for Circuits Extended to Portable, Pendant or Fixed Equipment.** The bonding conductor size for circuits run to equipment from the outlets, that are bonded in accordance with Rule 10-814, shall be not less than that given in Column 2 or 3 of Table 16 as applicable, except that where flexible cord having copper conductors in sizes No. 16 AWG and smaller is used, the bonding conductor shall be the same size as the circuit conductors.

**10-818 Bonding Conductor for Outline Lighting.** Isolated non-current-carrying metal parts of outline lighting equipment are permitted to be bonded together by a No. 14 AWG conductor of copper or of equal conductance if of other metal and protected from mechanical injury.

**10-820 Bonding Conductor Size for Instrument Transformers.** The bonding conductor for secondary circuits of instrument transformers and for instrument cases shall be not smaller than No. 12 AWG if of copper, or of equal conductance if of other metal.

#### **Grounding and Bonding Conductor Connections**

**10-900 Bonding Conductor Connection to Raceways.** The point of connection of the bonding conductor to interior metal raceways, cable armour and the like shall be as near as practicable to the source of supply and shall be chosen so that no raceway or cable armour is bonded through a run of smaller size than is called for in Rule 10-814.

#### **10-902 Grounding Conductor Connection to Water Pipe Electrodes**

(1) Where the grounding electrode is a metallic water-piping system to which a common grounding conductor or the grounding conductor of a system is attached, the point of attachment shall be:

- (a) On the street side of the water meter; or
- (b) On a cold-water pipe of adequate ampacity and as near as practicable to the point of entrance of the water service in the building.

(2) Where practicable, the point of attachment shall be accessible.

(3) The metallic cold water system shall be made electrically continuous from the point of attachment of the grounding conductor to the water service entrance by bonding together all parts thereof if these parts contain insulating sections or may become disconnected as at meters, valves and unions.

(4) Equipment may be grounded to a cold-water pipe which is near the equipment.

#### **10-904 Grounding Conductor Connection to other than Water Pipe Electrodes**

(1) Where a metallic water-piping system is not available, the grounding conductor shall be attached to other electrodes at a point which will assure a permanent ground.

(2) Where practicable, the point of attachment shall be accessible.

#### **10-906 Bonding Conductor Connection to Circuits and Equipment**

(1) The bonding conductor or bonding jumper shall be attached to circuits, conduits, cabinets, equipment and the like, which are to be bonded, by means of

lugs, pressure wire connector clamps, or other approved means.

(2) Connections that depend upon solder shall not be used.

(3) The bonding conductor shall be secured to every metal box by means of a bonding screw, which shall be used for no other purpose.

(4) The bonding conductor shall be brought into every non-metallic outlet box in such a manner that it can be connected to any fitting or device that may require bonding to ground.

(5) Equipment shall be so installed that if the connections between the branch circuit and the internal conductors pass through an access cover the bonding connection shall remain continuous when the cover is removed.

(6) A bonding jumper shall be installed to connect the bonding conductor to the grounding terminal of a receptacle and in such a manner that disconnection or removal of the receptacle will not interfere with or interrupt grounding continuity.

(7) In the case of metallically enclosed systems where the grounding path is provided by the metal enclosure, a bonding jumper shall be installed to bond the grounding terminal of the receptacle to the enclosure.

(8) Notwithstanding Subrules (6) and (7) the bonding jumper, in the case of receptacles having grounding terminals isolated from the mounting strap required for special equipment, may be extended directly back to the distribution panel.

(9) Notwithstanding Rule 10-808, electronic equipment rated to operate at a supply voltage not exceeding 150 volts to ground and which requires a separate bonding conductor shall be permitted to be bonded to ground by an insulated conductor extending directly back to the distribution panel, provided that:

- (a) The separate bonding conductor is enclosed throughout its length in the same raceway or cable containing the circuit conductors throughout the length of that cable or raceway;
- (b) The separate bonding conductor is sized not less than that given in Table 16 for each leg of the run, determined by the size of the overcurrent protection for the circuit conductors; and
- (c) The bonding requirements of Rules 10-302 and 10-400 are met.

#### **10-908 Grounding Conductor Connection to Electrodes**

(1) The grounding conductor shall be attached to the grounding electrode by means of:

- (a) An approved bolted clamp;
- (b) A pipe fitting plug or other device screwed into the pipe or into the fitting;
- (c) Copper welding by the thermit process; or
- (d) Other equally substantial means.

(2) Where a bolted clamp is used for a wet location or for direct earth burial, the clamp shall be of copper, bronze or brass, and the bolts shall be of a similar material or of stainless steel.

(3) The grounding conductor shall be attached to the grounding fitting as required by Rule 10-906(1).

(4) Connections which depend on solder shall not be used.

(5) Not more than one conductor shall be connected to the grounding electrode by a single clamp or fitting, unless the clamp or fitting is of a type approved for multiple conductor connection.

### **Lightning Arresters**

#### **10-1000 Lightning Arresters on Secondary Services—750 Volts or Less**

(1) Where a lightning arrester is installed on a secondary service, the connections to the service conductors and to the grounding conductor shall be as short as practicable.

(2) The grounding conductor may be:

- (a) The grounded service conductor;
- (b) The common grounding conductor;
- (c) The service equipment grounding conductor; or
- (d) A separate grounding conductor.

(3) The bonding or grounding conductor shall be of copper not smaller than No. 6 AWG.

#### **10-1002 Installation Requirements and Guarding for Lightning Arrester Grounding Conductors.** The grounding conductor for lightning arresters shall:

- (a) When enclosed in metallic material be connected to the guard at both ends; and
- (b) Be installed and protected to meet the requirements of Rule 10-806.

## **SECTION 12—WIRING METHODS**

### **SCOPE**

**12-000 Scope.**—(1) The provisions of Section 12 apply to all wiring installations operating at 750 volts or less, except for:

- (a) Class 2 circuits unless otherwise specified in Section 16;
- (b) Optical fiber cables unless otherwise specified in Section 56;
- (c) Conductors which form an integral part of factory built equipment.

(2) The provisions of this Section apply also to installations operating at voltages in excess of 750 volts except as modified by the requirements of Section 36.

## GENERAL REQUIREMENTS

### 12-010 Wiring in Ducts and Plenum Chambers

(1) No electrical equipment of any type unless approved for the purpose shall be installed in ducts used to transport dust, loose stock or flammable vapours.

(2) No electrical equipment that is not specifically approved for the purpose shall be installed:

- (a) In any duct used for vapour removal or for ventilation of commercial type cooking equipment; or
- (b) In any shaft which is required by regulation to contain only such ducts.

(3) Where conductors are installed in ducts, plenums, or hollow spaces that are used to transport or move air as part of an environmental air system or in a duct or plenum chamber to connect to an integral fan system, the conductors shall be in accordance with the requirements of Rules 12-100 and 2-128.

(4) Notwithstanding Subrule (3), where a plenum or hollow space is created by a suspended ceiling having lay-in panels or tiles, flexible cord not exceeding 3 metres in lengths and terminated with an attachment plug shall be permitted to supply pole type multi-outlet assemblies and recessed fluorescent luminaires provided the flexible cord is listed in Table 11 for:

- (a) hard usage where connected to either pole type multi-outlet assemblies or recessed fluorescent luminaires, where the voltage does not exceed 300 volts;
- (b) extra hard usage where connected to recessed fluorescent luminaires and where the supply voltage does not exceed 750 volts; and
- (c) at least 90° Celsius where supplying recessed fluorescent luminaires.

(5) Where a furnace cold-air return duct is formed by boxing in between joists, wiring methods approved for use in the particular location may be used.

### 12-012 Underground Installations

- (1) Direct buried conductors, cables or raceways

approved for the purpose shall be installed to meet the minimum cover requirements of Table 53.

(2) The minimum cover requirements are permitted to be reduced by 150 millimetres where mechanical protection is placed in the trench over the underground installation.

(3) Mechanical protection shall consist of one of the following and when in flat form shall be wide enough to extend at least 50 millimetres beyond the conductor, cables or raceways on each side:

- (a) Treated planking at least 38 millimetres thick;
- (b) Poured concrete at least 50 millimetres thick;
- (c) Concrete slabs at least 50 millimetres thick;
- (d) Concrete encasement at least 50 millimetres thick; or
- (e) Other acceptable material.

(4) Direct buried conductors or cables shall be installed so that they run adjacent to each other and do not cross over each other, and with a layer of 6 millimetres (nominal) screened sand or screened earth at least 75 millimetres deep, both above and below the conductors.

(5) Where conductors or cables rise for terminations or splices or where access is otherwise required, mechanical protection shall be provided in the form of rigid conduit terminated vertically in the trench and including a bushing or bell end fitting, or other acceptable protection at the bottom end from 300 millimetres above the bottom of the trench to at least 2 metres above finished grade, and beyond that as may be required by other Rules of the Code, and with sufficient slack provided in the conductors at the bottom end of the conduit so that the conductors enter the conduit from a vertical position.

(6) Cables buried directly in earth may be spliced or tapped in trenches without the use of splice boxes where the splices and taps are made by methods and with material approved for the purpose and the failure to use splice boxes is lawful under Rule 2-030.

(7) Raceways or metallic cables, if located in rock, may be installed at a lesser depth entrenched into the rock in a trench not less than 150 millimetres deep and grouted with concrete to the level of the rock surface.

(8) Raceways may be installed directly beneath a concrete slab at grade level provided the concrete slab is not less than a nominal 100 millimetres in thickness and the location is adequately marked and the raceway will not be subject to damage during or after installations.

(9) Any form of mechanical protection that may adversely affect the conductors or cable assemblies, shall not be used.

(10) Backfill containing large rock, paving materials, cinders, large or sharply angular substance, or corrosive material, shall not be placed in an excavation where such materials may damage cables, raceways or other substructures or prevent adequate compaction of fill or contribute to corrosion of cables, raceways or other substructures.

(11) The initial installation shall be provided with adequate marking in a conspicuous location to indicate the location and depth of the underground installation.

(12) For installations not covered by the foregoing requirements of this Rule, the requirements of CSA Standard CAN3-C22.3 No. 7-M86, Underground Systems shall apply.

(13) When it is permitted to utilize the free air ratings of Tables 1 and 3, the conductors shall be spaced at a minimum of 150 millimetres centre-to-centre.

#### **12-014 Conductors in Hoistways**

(1) Where conductors other than those used to furnish energy to the elevator or dumbwaiter are installed in hoistways, they shall be mineral-insulated cable, aluminum-sheathed cable or armoured cable, or be run in rigid metal conduit or flexible metal conduit or metallic tubing.

(2) The cable, conduit, or tubing referred to in Subrule (1) shall be:

- (a) Securely fastened to the hoistway construction; and
- (b) Arranged so that terminal, outlet, or junction boxes open outside the hoistway except that pull boxes may be installed in long runs for the purpose of supporting or pulling-in conductors.

**12-016 Lightning Rod Conductors.** Where lightning rod conductors are installed, electrical wiring shall, where practicable, be kept at least 2 metres from such conductors except where bonding is provided in accordance with Rule 10-708.

**12-018 Entry of Raceways and Cables into Buildings.** Holes in outer walls or roofs of buildings through which raceways or cables pass shall be filled to prevent infiltration of moisture.

#### **12-020 Wiring Under Raised Floors for Data Processing and Similar Systems**

(1) Flexible cords or cables and appliance wiring material with a jacket or overall insulating covering to connect and interconnect data processing and similar systems shall be permitted to be installed under raised floors provided:

- (a) The raised floor is of non-combustible construction, and, if of conductive material, is bonded to ground in accordance with Rule 10-406; and

- (b) The cords or cables terminate in attachment plugs having the configuration in accordance with Diagram 2 or which are classified as industrial type, special use attachment plugs, receptacles, or connectors.

(2) Branch circuit conductors installed under raised floors to supply receptacles shall be installed in rigid conduit, electrical metallic tubing, flexible metal conduit, armoured cables or metal sheathed cable including mineral-insulated cable other than the light weight type.

### **CONDUCTORS**

#### **General**

**12-100 Types of Conductors.** Conductors installed in any location shall be suitable for the condition of use as indicated in Table 19 for the particular location involved and with particular respect to:

- (a) Moisture, if any;
- (b) Corrosive action, if any;
- (c) Temperature;
- (d) Degree of enclosure; and
- (e) Mechanical protection.

#### **12-102 Thermoplastic-Insulated Conductors**

(1) Conductors having thermoplastic insulation shall not be installed during any time when the ambient temperature is sufficiently low as to be liable to cause damage to the insulation.

(2) Such conductors shall not be so installed as to permit flexing or movement of the conductors after installation if the ambient temperature is liable to become low enough to damage the insulation during flexing or movement.

**12-104 Flame Tested Coverings.** Where the insulation on a conductor has a flame tested covering, the covering shall be removed sufficiently at terminals and splices to prevent creepage of current over it.

#### **12-106 Multi and Single Conductor Cables**

(1) Where multi-conductor cable is used, all conductors of a circuit shall be contained in the same multi-conductor cable except that, where it is necessary to run conductors in parallel due to the capacity of an alternating current circuit, additional cable may be used provided any one such cable includes an equal number of conductors from each phase and the neutral and shall be in accordance with Rule 12-108.

(2) A multi-conductor cable shall not contain circuits of different systems except as permitted in Rule 12-3034.

(3) Where single conductor cables are used, all single conductor cables of a circuit shall be of the same type and temperature rating and if run in parallel shall be in accordance with Rule 12-108.

(4) Single conductor armoured cable used as a current carrying conductor shall be of a type having non-ferrous armour.

### 12-108 Conductors in Parallel

(1) Except as provided for in Subrule (3) conductors of similar conductivity in sizes No. 1/0 AWG copper or aluminum and larger may be in parallel, provided they are:

- (a) Free of splices throughout the total length;
- (b) The same circular mil area;
- (c) The same type of insulation;
- (d) The same length; and
- (e) Terminated at both ends in a wire connector specifically approved for use with conductors in parallel or in individual wire connectors, mounted on a solid bus bar or splitter with a separate screw or stud for each connector to ensure equal division of current.

(2) The orientation of single conductor metal sheathed or armoured cables in parallel, with respect to each other and to those in other phases, shall be such as to minimize the difference in inductive reactance and the unequal division of current.

(3) Conductors of similar conductivity in sizes smaller than No. 1/0 AWG copper may be run in parallel to supply control power to indicating instruments and devices, contactors, relays, solenoid, and similar control devices provided:

- (a) They are contained within one cable;
- (b) The ampacity of each individual conductor is sufficient to carry the entire load current shared by the paralleled conductors; and
- (c) The overcurrent protection is such that the ampacity of each individual conductor will not be exceeded if one or more of the paralleled conductors becomes inadvertently disconnected.

**12-110 Radii of Bends in Conductors.** The radii of bends in conductors shall be sufficiently large to ensure that no injury is done to the conductors or their insulation, covering, or sheathing.

### 12-112 Conductor Joints and Splices

(1) Unless made with approved solderless wire connectors, joints or splices in insulated conductors shall be soldered, but they shall first be made mechanically and electrically secure.

(2) Joints or splices shall be covered with an insulation approved for the purpose.

(3) Joints or splices in wires and cables shall be accessible.

(4) Splices in underground runs of cable, if required due to damage to the original installation, may be made:

(a) In junction boxes suitably protected from mechanical damage which are located at least 1 metre above grade and secured to buildings or to stub poles; or

(b) Notwithstanding the requirements of Subrule (3), by means of acceptable splicing devices or material (kits) suitable for direct earth burial.

**12-114 Ends of Insulated Conductors.** Where the ends of insulated conductors at switch and fixture outlets and in like places are not in use, they shall be insulated in the manner prescribed for joints and splices.

### 12-116 Termination of Conductors

(1) The portion of stranded conductors to be held by wire-binding terminals or solderless wire connectors shall have the strands confined so that there will be no stray strands to cause either short-circuits or grounds.

(2) Stranded and solid conductors larger than number 10 AWG shall be terminated in solderless wire connectors but are permitted to be soldered into wire connectors specifically approved for the purpose except where prohibited by Section 10.

### 12-118 Termination and Splicing of Aluminum Conductors

(1) Adequate precaution shall be given to the termination and splicing of aluminum conductors including the removal of insulation and separators, the cleaning (wire brushing) of stranded conductors, and the compatibility and installation of fittings.

(2) A joint compound, capable of penetrating the oxide film and preventing its reforming, shall be used for terminating or splicing all sizes of stranded aluminum conductors, unless the termination or splice is approved for use without compound and is so marked.

(3) Equipment connected to aluminum conductors shall be specifically approved for the purpose and be so marked except:

- (a) Equipment that has only leads for connection to the supply; or
- (b) Equipment such as outlet boxes that has only grounding terminals.

(4) Aluminum conductors shall not be terminated or spliced in wet locations unless the termination or splice is adequately protected against corrosion.

(5) Field-assembled connections between aluminum lugs and aluminum or copper bus bars or lugs, involving bolts or studs  $\frac{3}{8}$  inch diameter or larger shall include as part of the joint any of the following means of allowing for expansion of the parts:

- (a) A conical spring washer; or
- (b) A helical spring washer of the heavy series, provided that a flat steel washer of thickness

not less than 1/6 of the nominal diameter of the bolt or stud is interposed between the helical washer and any aluminum surface against which it would bear; or

- (c) Aluminum bolts or studs, provided that all the elements in the assembled connection are of aluminum.

(6) Connection of aluminum conductors to wiring devices having wire binding terminal screws, about which conductors can be looped under the head of the screw, shall be made by forming the conductor in a clockwise direction around the screw into  $\frac{3}{4}$  of a complete loop; and only one conductor shall be connected to any one screw.

### 12-120 Supporting of Conductors

(1) Conductors shall be supported so that no injurious strain is imposed on the terminals of any electrical apparatus or devices or on any joints or taps.

(2) Conductors in vertical raceways shall be supported independently of the terminal connections and at intervals not exceeding those specified in Table 21, and such supports shall maintain the continuity of the raceway system without injury to the conductors or their covering.

(3) Conductors in raceways shall not hang over the edges of bushings, bends or fittings of any kind in such a manner that the insulation may be damaged.

### Open Wiring

**12-200 Open Wiring Rules.** Rules 12-202 to 12-224 apply only to single conductors run as open wiring.

**12-202 Types of Conductors.** Conductors shall be of types specified in Rules 12-100 and 12-102.

### 12-204 Spacing of Conductors

(1) Spacings between conductors and between conductors and adjacent surfaces shall, except as otherwise provided for in this Rule, comply with the following:

- (a) For normally dry locations the spacings shall be not less than those specified in Table 20;
  - (b) Where circuits of different voltages are run parallel to each other, the separation between adjacent conductors of the different circuits shall be not less than that specified in Table 20 for conductors of the circuit having the higher voltage;
  - (c) In damp locations, a separation of at least 25 millimetres shall be maintained between conductors and adjacent surfaces.
- (2) In all locations, a separation of at least 25 millimetres shall be maintained between conductors and adjacent metallic piping or conducting materials.
- (3) Where conductors are run across the open faces of joists, studs, or timber, the separation between conductors shall be as specified in Rule 12-212.

(4) At connections to fittings and devices or in other cases where it is not practical to maintain the spacing specified in Subrules (1), (2) and (3), the conductors shall be installed in raceways or acceptable insulating tubing.

### 12-206 Conductor Supports

(1) Conductors shall be supported rigidly on non-combustible, absorption-resisting insulators.

(2) Split knobs shall not be used to support conductors larger than No. 8 AWG copper or aluminum.

(3) Conductors supported on solid knobs shall be securely tied thereto by tie wires having insulation of the same type as that on the conductors which they secure.

(4) Where used on metal surfaces, thermoplastic-insulated conductors shall not be mounted in split knobs or cleats.

**12-208 Conductors on Flat Surfaces.** Where conductors are run on flat surfaces, they shall be supported rigidly at intervals of not more than 1.5 metres.

**12-210 Material for Attachment of Conductor Supports.** Knobs and cleats shall be fastened securely with screws.

### 12-212 Protection from Mechanical Injury

(1) Where conductors are supported on or run across the open faces of joists, wall-studs, or other timber, or on walls where exposed to mechanical injury, they shall be protected by running-boards, guard-strips, wooden boxing or sleeves of iron pipe.

(2) Where conductors are not exposed to mechanical injury, they may be run directly from timber to timber, but shall be:

- (a) Of not less than No. 8 AWG;
- (b) Separated from each other by not less than 150 millimetres; and
- (c) Supported at each timber.

(3) Open wiring shall not be run across the tops of ceiling joists in unfinished attics or like places.

### 12-214 Material for Running-Boards, Guard-Strips and Boxing

(1) Material for running-boards, guard-strips, and boxing shall be at least 19 millimetres thick and the edges of running-boards shall project at least 12 millimetres beyond the insulators on both sides.

(2) Guard-strips shall be at least as high as the insulators and placed as close to the conductors as Table 20 permits.

(3) In wooden boxing, there shall be a clear space of at least 25 millimetres between conductors and adjacent surfaces, and the ends of boxing not abutting on the structure of the building shall be closed.

**12-216 Ends of Conductors**

(1) Conductors shall not be brought to a dead-end at any fitting distant more than 300 millimetres from the last supporting insulator.

(2) Where conductors of No. 8 AWG copper or aluminum or larger are run as open wiring, solid knobs or strain insulators shall be used at the ends of the run.

**12-218 Conductors Passing Through Walls or Floors.** Where conductors pass through walls, floors, timbers or partitions, they shall be installed in raceways or acceptable insulating tubing.

**12-220 Maintaining Clearances.** Sub-bases shall be installed under all surface-mounted switches and receptacles unless adequate clearances are otherwise maintained.

**12-222 Where Open Wiring Connects to Other Systems of Wiring.** Where open wiring is connected to conductors in raceways, armoured cable, or non-metallic sheathed cable, the junction shall be made in a box, or at, or in, a fitting having a separately bushed hole for each conductor.

**12-224 Provision for Bonding.** Where open wiring is used, provision for bonding to ground shall be made in accordance with the Section 10 requirements.

**Exposed Wiring on Exteriors of Buildings  
and Between Buildings on the  
Same Premises**

**12-300 Exterior Exposed Wiring Rules.** Rules 12-302 to 12-318 apply only to exposed wiring run on the exterior surfaces of buildings or between buildings on the same premises.

**12-302 Types of Conductors.** Conductors shall be of types suitable for exposure to the weather as indicated in Table 19.

**12-304 Location of Conductors**

(1) Subject to the provisions of Rule 6-112, where the conductors are supported on or in close proximity to the exterior surfaces of buildings they shall be installed and protected so that they shall not be a hazard to persons or be exposed to mechanical injury and they shall be at least 4.5 metres from the ground or such shorter distance from the ground as is lawful under Rule 2-030.

(2) Where the conductors are exposed to mechanical injury from awnings, swinging signs, shutters, or other movable objects, they shall be run in rigid conduit made water-tight.

**12-306 Conductor Supports**

(1) Conductors on the exterior surfaces of buildings shall be supported by brackets, racks, insulators, or other acceptable means at intervals of not more than 3 metres and the individual conductors shall be distant at least 150 millimetres from one another and at least 50 millimetres from the adjacent surfaces.

(2) Where petticoat insulators are used, they shall be installed at intervals of not more than 4.5 metres under normal conditions and at smaller intervals where the conductors are subject to disturbance and shall be located so as to hold the individual conductors at least 300 millimetres apart and at least 50 millimetres from adjacent surfaces.

(3) Where the conductors are not exposed to the weather, they may be supported on glass or porcelain knobs placed at intervals of not more than 1.5 metres and holding the conductors at least 25 millimetres from adjacent surfaces.

(4) Where conductors connected to a voltage of 300 volts or less are located in proximity to conductors of a higher voltage not exceeding 750 volts, the conductors of the higher voltages shall be mounted above and kept at least 300 millimetres away from the conductors of the lower voltage.

**12-308 Minimum Size of Overhead Conductors.** Single conductors run aerially between buildings or supports on the same premises in spans exceeding 4.5 metres shall have acceptable tensile strength and shall be not smaller than:

- (a) No. 10 AWG copper or No. 6 AWG aluminum for spans of more than 4.5 metres but not more than 15 metres;
- (b) No. 8 AWG copper or No. 4 AWG aluminum for spans of more than 15 metres but not more than 30 metres; and
- (c) No. 6 AWG copper or No. 3 AWG aluminum for spans of more than 30 metres but not more than 40 metres.

**12-310 Clearance of Conductors.** The conductors shall be located or guarded so that they cannot be reached by a person standing on a fire escape, flat roof, or other portion of a building, and they shall be:

- (a) at least 2.5 metres, or such lesser distance of at least 2 metres as is lawful under Rule 2-030, above the highest point of a flat roof or roof that can be readily walked upon; and
- (b) at least 1 metre above a peaked roof or the highest point of a roof that cannot be readily walked upon.

**12-312 Conductors over Buildings.** Conductors shall not be carried over buildings unless doing so is lawful under Rule 2-030, and work shall not begin until the plans and specifications for the work are approved in accordance with Rule 2-010.

**12-314 Conductors on Trestles.** Where the conductors pass over buildings, they shall, where practicable, be supported on structures not connected to the building but, where not practicable, they shall be supported on and secured to trestles constructed of steel or other acceptable material.

**12-316 Power Supply Conductors.** The conductors of a power supply system attached to the exterior

surfaces of buildings shall be at least 100 millimetres from the conductors of a communication system unless one system is in conduit or is permanently separated from other systems by a continuous fixed non-conductor other than the insulation on the conductors.

**12-318 Use of Neutral Supported Cables.** When neutral supported cables are used the following requirements shall apply:

- (a) They shall not be mounted directly on any surface;
- (b) They shall be secured so that they will be not less than:
  - (i) 1 metre from a building in the case of Type NS-1;
  - (ii) 50 millimetres from a building in the case of Type NSF-2;
- (c) They shall be supported in spans of not more than 38 metres in length;
- (d) The conductors shall be secured to the messenger at all terminations;
- (e) Where aluminum conductors are used, wire connectors approved for use with such conductors shall be used; and
- (f) The bare neutral (messenger) when used as a neutral conductor forming part of an electrical circuit shall be:
  - (i) Supplied from a grounded ac system;
  - (ii) Attached to an insulator at points of support and at terminations; and
  - (iii) Not connected to or in contact with any grounded surface except as permitted by other rules of this Code.

#### **Bare Bus Bars and Risers**

##### **12-400 Where Bare Bus Bars May be Used**

- (1) Bare conductors shall not be used as main risers or feeders in buildings unless the use is lawful under Rule 2-030 and Subrule (2) of this Rule.
- (2) Notwithstanding Rule 2-030, bare conductors shall not be used as main risers or feeders in buildings unless,
  - (a) The building is of non-combustible construction;
  - (b) The conductors are placed in a chase, channel, or shaft located or guarded so that the conductors are inaccessible;
  - (c) The premises do not constitute a hazardous location;
  - (d) Suitable cut-offs to protect against the vertical spread of fire are provided where floors are pierced; and

- (e) The mechanical and electrical features of the installation and the conductor supports are, appropriate to the operating and maintenance conditions likely to occur, the following specific requirements being used in the case of bus bars rated 1,200 amperes or less:
  - (i) Where flat bare bus bars  $\frac{1}{4}$  inch or less in thickness are used, the continuous current rating shall not exceed 1,000 amperes per square inch of cross-sectional area of copper bus bar, or 700 amperes in the case of aluminum bus bars; and
  - (ii) Bus bar supports shall be spaced not greater than 750 millimetres apart, with minimum clearance across insulating surfaces between bars of opposite polarity of not less than 50 millimetres and 25 millimetres between bus bars and any grounded surface.

#### **Nonmetallic Sheathed Cable**

**12-500 Nonmetallic Sheathed Cable Rules.** Rules 12-502 to 12-526 shall apply only to conductors run as nonmetallic sheathed cable.

**12-502 Maximum Potential.** Nonmetallic sheathed cable shall not be used where the voltage exceeds 300 volts between any two conductors.

##### **12-504 Use of Nonmetallic Sheathed Cable**

- (1) Nonmetallic sheathed cable is permitted in or on buildings of combustible construction and in or on other types of construction by special permission.
- (2) Nonmetallic sheathed cable is not permitted in or on buildings that are required to be of noncombustible construction by the Ontario Building Code.

##### **12-506 Method of Installation**

- (1) The cable shall be run in continuous lengths between outlet boxes, junction boxes, and panel boxes as a loop system, and the joints, splices, and taps shall be made in the boxes.
- (2) Where concealed wiring is connected to non-metallic sheathed cable, the junction shall be made in a box.
- (3) Where open wiring is connected to nonmetallic sheathed cable, the junction shall be made in a box or at or in a fitting having a separately bushed hole for each conductor.
- (4) Where nonmetallic sheathed cable is run in proximity to heating ducts or piping, transfer of heat to the cable shall be minimized by means of an air space of at least 25 millimetres or by the installation of an acceptable thermal barrier between the cable and the duct or piping.
- (5) Two-conductor cable shall not be stapled on edge.

**12-508 Bending and Stapling of Cable.** The cable shall not be bent, handled, or stapled so that the insulated conductors or outer covering is damaged.

**12-510 Running of Cable Between Boxes and Fittings**

(1) Where the cable is run between boxes and fittings it shall be supported by straps or other approved devices located within 300 millimetres of every box or fitting and at intervals of not more than 1.5 metres throughout the run.

(2) Cables run through holes in joists or studs shall be considered to be supported.

(3) Notwithstanding Subrules (1) and (2), where the cable is run as concealed wiring such that it is impracticable to support it, the cable may be fished and need not be supported between boxes and fittings.

**12-512 Not to be Embedded.** The cable shall not be buried in plaster, cement, or similar finish.

**12-514 Protection on Joists and Rafters.** Cables shall not be run on or across:

- (a) The upper faces of ceiling joints or the lower faces of rafters in attic or roof spaces, where the vertical distance between the joists and the rafters exceeds 1 metre; or
- (b) The lower faces of basement joists, unless suitably protected from mechanical injury.

**12-516 Protection For Cable In Concealed Installations**

(1) Where the cable is run through studs, joists, or similar wooden members, the outer surfaces of the cable shall be kept distant at least 32 millimetres from the edges of the wooden members or the cable shall be effectively protected from mechanical injury.

(2) Where the cable is run through or along metal studs, joists, sheathing or cladding, it shall be:

- (a) So located to be effectively protected from mechanical injury both during and after installation;
- (b) Protected where it passes through a member by an approved insert of insulating material adequately secured to the opening in the member; and
- (c) Supported where it runs along or parallel to a member by an approved support of insulating material to ensure isolation from the metal.

(3) Where the cable is installed immediately behind a baseboard, it shall be effectively protected from mechanical injury from driven nails.

**12-518 Protection for Cable in Exposed Installations.** Cable used in exposed wiring shall be adequately protected against mechanical damage

where it passes through a floor, is less than 1.5 metres above a floor or where exposed to mechanical damage.

**12-520 Fished Cable Installation.** Where the cable is used in concealed wiring and it is impracticable to provide the supports required by Rule 12-510 the cable may be fished.

**12-522 Where Outlet Boxes Are Not Required**

(1) Where the cable is exposed, approved switch, outlet, and tap devices of insulating material may be used without boxes.

(2) The openings in the devices shall fit closely around the outer covering of the cable.

(3) The device shall fully enclose any part of the cable from which any part of the covering has been removed.

(4) Where the conductors are connected to the devices by binding-screw terminals, there shall be as many screws as there are conductors unless the cables are clamped within the device or the terminals are of a type approved for the purpose.

**12-524 Types of Boxes and Fittings**

(1) Boxes and fittings shall be of a type approved for use with nonmetallic sheathed cable.

(2) Where grounded metal boxes are not required by these rules, outlet and switch boxes may be of fire-resisting moulded composition insulating material, furnished with a cover of the same material.

**12-526 Provision for Bonding.** Where nonmetallic sheathed cable is used, provision for bonding to ground shall be made in accordance with Section 10.

**Armoured Cable**

**12-600 Armoured Cable Work Rules.** Rules 12-602 to 12-618 apply only to armoured-cable work.

**12-602 Use**

(1) Armoured cable may be installed in or on buildings or portions of buildings of either combustible or non-combustible construction.

(2) Armoured cable shall be of the type listed in Table 19 as suitable for direct burial if used:

- (a) For underground runs;
- (b) For circuits in masonry or concrete provided the cable is encased or embedded in at least 50 millimetres of the masonry or concrete; or
- (c) In locations where it will be exposed to weather, continuous moisture, excessive humidity or to oil or other substances having a deteriorating effect on the insulation.

(3) Armoured cable which has the armouring made

wholly or in part of aluminum shall not be embedded in concrete containing reinforcing steel unless:

- (a) The concrete is known to contain no chloride additives; or
- (b) The armour has been treated with an approved bituminous base paint or other approved means to prevent galvanic corrosion of the aluminum.

(4) Where armoured cables are laid in or under cinders or cinder concrete, they shall be protected from corrosive action by a grouting of non-cinder concrete at least 25 millimetres thick entirely surrounding them unless they are 450 millimetres or more under the cinders or cinder concrete.

(5) In buildings of non-combustible construction, armoured cables having conductors not larger than No. 10 AWG copper or aluminum, may be laid on the face of the masonry or other material of which the walls and ceiling are constructed and may be buried in the plaster finish.

**12-604 Protection for Armoured Cables in Lanes.** If subject to mechanical injury and unless otherwise protected, acceptable steel guards of not less than No. 10 MSG, adequately secured, must be installed to protect armoured cables less than 2 metres above grade in lanes and driveways.

**12-606 Use of Thermoplastic Covered Armoured Cable.** Armoured cable of the type listed in Table 19 as suitable for direct earth burial and which has a thermoplastic outer covering, shall only be used where the outer covering will not be subjected to mechanical injury.

**12-608 Continuity of Armoured Cable.** The armour of cables shall be mechanically and electrically continuous throughout and shall be mechanically and electrically secured to all equipment to which it is attached, except that the lead-sheath of lead-sheathed armoured cable need not be bonded.

#### 12-610 Terminating Armoured Cable

(1) Where conductors issue from armour, they shall be protected from abrasion:

- (a) By acceptable bushings of insulating material or equivalent devices; or
- (b) By the sheath of lead-sheathed armoured cable.

(2) Where conductors are No. 8 AWG or larger, copper or aluminum, the protection shall consist of:

- (a) Insulated type bushings, unless the equipment is equipped with a hub having a smoothly rounded throat; or
- (b) Insulating material fastened securely in place which will separate the conductors from the armoured cable fittings and afford adequate resistance to mechanical injury.

(3) Where armoured cable is fastened to equipment, the connector or clamp shall be of such design as to leave the insulating bushing or its equivalent, or the end of the lead sheath, visible for inspection.

(4) Where conductors connected to open wiring issue from the ends of armouring, they shall be protected with approved boxes or with fittings having a separately bushed hole for each conductor.

(5) Where lead-sheathed armoured cables are used in locations where moisture may accumulate, a pothead or equivalent device shall be used to protect the conductors from moisture and mechanical injury at their point of issue from the lead-sheathing.

**12-612 Proximity to Knob-and-Tube and Non-metallic Sheathed Cable Systems.** Where armoured cable is used in a building in which concealed knob-and-tube wiring or concealed non-metallic sheathed cable wiring is installed, the cable shall not be fished if there is a possibility of damage to the existing wiring.

#### 12-614 Radii of Bends in Armoured Cables

(1) Where armoured cables are bent during installation, the radius of the curve of the inner edge of the bends shall be at least 6 times the internal diameter of the armoured cable.

(2) Where lead-sheathed armoured cable is used, the radius of the curve of the inner edge of the bends shall be at least 10 times the internal diameter of the armoured cable.

(3) Bends shall be made without undue distortion of the armour and without injury to its inner or outer surfaces.

#### 12-616 Concealed Armoured Cable Installation

(1) Where armoured cable is run through studs, joists, or other members, it shall be:

- (a) Located so that its outer circumference is at least 32 millimetres from the nearest edge of the members; or
- (b) Protected from mechanical injury where it passes through the holes in the members.

(2) Where armoured cable is installed immediately behind baseboards, it shall be protected from mechanical injury from driven nails.

**12-618 Running of Cable Between Boxes, Etc.** Armoured cable shall be supported between boxes and fittings in accordance with Rule 12-510.

#### Mineral-Insulated and Aluminum-Sheathed Cable

**12-700 Mineral-Insulated and Aluminum-Sheathed Cable Rules.** Rules 12-702 to 12-718 cover the installation of mineral-insulated and aluminum-sheathed cable and are amendatory of the other rules of this Code where they apply.

#### 12-702 Use

(1) Mineral-insulated cable and aluminum-sheathed cable may be installed in or on buildings or portions of buildings of either combustible or non-combustible construction.

(2) Light-weight mineral-insulated cable shall be used only in multi-conductor assemblies.

#### 12-704 Use When Embedded

(1) Mineral-insulated cable and, round aluminum-sheathed cable, except as noted in Subrule (3), may be used for underplaster extensions or when encased or embedded in at least 50 millimetres of masonry or poured concrete.

(2) Flat two-conductor aluminum-sheathed cable shall not be used for underplaster extensions where embedded in masonry or concrete unless the use is lawful under Rule 2-030 or Subrule (3) of this Rule.

(3) Cable having an aluminum sheath shall not be embedded in concrete containing reinforcing steel unless:

- (a) The concrete is known to contain no chloride additives; or
- (b) The sheath has been treated with an approved bituminous base paint or other approved means to prevent galvanic corrosion of the aluminum.

#### 12-706 Method of Supporting

(1) Mineral-insulated and aluminum-sheathed cable shall be securely supported by staples, straps, hangers, or similar fittings in such a manner as not to:

- (a) Injure the sheath of the cable; or
- (b) Subject the cable or its termination fittings to undue strain.

(2) Mineral-insulated and aluminum-sheathed cable shall be secured at intervals not exceeding 2 metres, except where the cable is fished and adequate supports are installed, if needed, adjacent to termination fittings.

(3) When settlement of a structure may occur due to weight of contents as in certain grain storage occupancies, provision shall be made so that mineral-insulated and aluminum-sheathed cable runs, including their termination fittings, will not be subjected to undue strain.

(4) Mineral-insulated and aluminum-sheathed cable may be run on the surface of walls, partitions, ceilings, or on or across structural members, subject to the applicable requirements of Rule 12-710.

**12-708 Direct Earth Burial.** Mineral-insulated cable having an aluminum outer sheath and aluminum-sheathed cable in direct contact with the earth shall be provided with a non-metallic jacket or other corrosion resisting covering.

#### 12-710 Mechanical Protection

(1) Where subject to mechanical injury, mineral-insulated and aluminum-sheathed cable shall be suitably protected.

(2) Where mineral-insulated or aluminum-sheathed cable is installed on the face of a wall, partition, ceiling, or structural member within 1.5 metres of the floor, and in all locations where subject to mechanical injury as for instance from industrial tractors, other vehicles, equipment, stock piling, or excessive vibration, a suitable safeguard against such injury shall be provided.

(3) Mineral-insulated or aluminum-sheathed cable shall be protected, located, or arranged so that a 2½-inch common nail cannot be driven into it, where the cable is:

- (a) Run through bored or notched holes or grooves in wooden structural members;
- (b) Secured directly to the underside of wooden flooring;
- (c) Located behind baseboards or casings.

(4) In order to comply with Subrule (3), the hole, groove, or supporting strap containing the cable may be sufficiently oversized to permit the cable to move a distance equal to at least the radius of the cable.

(5) Where mineral-insulated or aluminum-sheathed cable passes from a point above grade to direct earth burial and is not otherwise protected against mechanical injury, a suitable pipe stubup shall be arranged to encase the cable to a point where practicable at least 300 millimetres above grade and, in locations where frost heaving may occur, the encasement shall slide freely on the cable, so as to avoid injury thereto.

#### 12-712 Radii of Bends

(1) The radius of the curve on the inner edge of bends made on mineral-insulated cable shall be not less than six times the external diameter of the sheath and shall be made so as not to damage the outer sheath.

(2) The radius of the curve on the inner edge of bends made on smooth aluminum-sheathed cable shall be not less than:

- (a) ten times the external diameter of the sheath for cable not more than 19 millimetres in external diameter;
- (b) twelve times the external diameter of the sheath for cable more than 19 millimetres but not more than 38 millimetres in external diameter; or
- (c) fifteen times the external diameter of the sheath for cable more than 38 millimetres in external diameter.

(3) The radius of the curve on the inner edge of bends made on corrugated aluminum-sheathed cable shall be not less than nine times the external diameter of the sheath.

### 12-714 Termination of Mineral-Insulated Cable.

At all points where mineral-insulated cable terminates.

- (a) The end of the cable shall be sealed immediately after stripping to prevent entrance of moisture to the insulation;
- (b) Each conductor extended beyond the sheath shall be provided with the proper insulation; and
- (c) Box connectors used with mineral-insulated cable shall be of types approved specifically for use with this cable.

**12-716 Connection to Other Forms of Wiring.** Where mineral-insulated or aluminum-sheathed cable is connected to other forms of wiring, the junction shall be made in a box, or at, or in, a fitting having a separately bushed hole for each conductor.

### Flat Conductor Cable Type FCC

**12-800 Type FCC Under-Carpet Wiring System Rules.** Rules 12-800 to 12-824 apply only to the installation of Type FCC under-carpet wiring systems.

**12-802 Special Terminology.** In this Subsection the following definitions apply:

- (a) **"Type FCC system"** means a complete wiring system for installation only under carpet squares and includes cable and associated fittings;
- (b) **"Type FCC cable"** means a cable consisting of 3 or more flat separated conductors laid flat and parallel in the same plane and enclosed within an insulating assembly;
- (c) **"Bottom shield"** means a protective layer that is between the floor and the Type FCC cable to protect the cable from physical damage;
- (d) **"Top shield"** means an electrically conductive covering for under-carpet components of a Type FCC system that provides a degree of protection against physical damage and electrical shock and may or may not be incorporated as an integral part of a Type FCC cable assembly;
- (e) **"Metal tape"** means a metal overlay to prevent physical damage to the Type FCC system;
- (f) **"Type FCC cable connector"** means a device used for joining Type FCC cables, with or without the use of a junction box;
- (g) **"Insulating end"** means an insulator designed to electrically insulate the exposed ends of Type FCC cables;
- (h) **"Transition assembly"** means an assembly specifically approved for the purpose of con-

necting a Type FCC system to other types of wiring systems.

**12-804 Use Permitted.** Type FCC systems are permitted to be used only for the extension of general purpose and appliance branch circuits:

- (a) In dry or damp locations;
- (b) On hard, smooth, continuous floor surfaces made of concrete, ceramic or composition flooring, wood, or similar materials; and
- (c) On floors heated in excess of 30°C when the FCC system is marked for the purpose.

**12-806 Use Prohibited.** Type FCC systems shall not be used:

- (a) Outdoors or in wet locations;
- (b) Where they are subject to corrosive vapours or liquids;
- (c) In any hazardous locations;
- (d) In dwelling units;
- (e) In schools, hospitals, or institutional buildings except in office areas;
- (f) On walls except where entering transition assemblies;
- (g) Under permanent type partitions or walls;
- (h) Where the voltage exceeds 150 volts-to-ground or 300 volts between any two conductors; or
- (i) For branch circuits exceeding 30 amperes.

**12-808 Floor Covering.** Floor mounted Type FCC cable with associated steel tape, shielding cable connections, and insulating ends shall be covered with carpet squares not having a dimension exceeding 750 millimetres on any side and any adhesive used shall be of the release type.

### 12-810 Connections and Terminations

- (1) Type FCC cable connections shall be installed so that electrical continuity, insulation, and sealing against dampness and liquid spillage are provided.
- (2) Bare ends shall be insulated and sealed by the use of insulating ends.

### 12-812 Shields

- (1) Type FCC systems shall include a bottom shield.
- (2) A metal top shield shall be installed over floor mounted Type FCC cable, connectors, and insulating ends.

**12-814 Enclosure and Shield Continuity.** Metal shields, tapes, boxes, receptacle housings, and self-contained devices shall be electrically continuous and bonded to ground.

**12-816 Connection to Other Systems.** Power feed, bonding, and shield system connections between the Type FCC system and other wiring systems shall be accomplished in a transition assembly intended for surface or recessed mounting.

**12-818 Anchoring.** Type FCC system components shall be firmly secured to floors and walls by means of:

- (a) An adhesive in the case of cables; and
- (b) Acceptable mechanical fasteners in the case of associated fittings such as outlet boxes and transition assemblies.

**12-820 Crossings.** A Type FCC cable run is permitted to cross over or under another Type FCC cable run or communication flat cable provided there is a layer of metal shielding between each of the cables.

#### **12-822 Mechanical Protection**

(1) All Type FCC systems installed under carpet squares shall be protected from physical damage by metal tape completely covering the Type FCC cable and connections.

(2) Where surface or recessed wall mounting of the Type FCC cable is required to enter transition assemblies, additional mechanical protection shall be provided to prevent damage from items such as nails and screws.

**12-824 System Height.** Except as permitted by Rule 12-820, stacked runs of flat conductor cable shall not be permitted.

### **RACEWAYS**

#### **General**

**12-900 Raceway Rules.** Rules 12-902 to 12-938 apply to raceways and to conductors run in raceways.

**12-902 Types of Conductors.** Conductors shall be of types suitable for use in raceways as indicated in Table 19.

#### **12-904 Conductors in Raceways**

(1) Where conductors are placed in metallic raceways, all conductors of a circuit shall be contained in the same raceway, or in the same channel of a multiple channel raceway, except that where it is necessary to run conductors in parallel due to the capacity of an alternating-current circuit additional enclosures may be used, provided:

- (a) The conductors are installed in accordance with Rule 12-108 (1);

- (b) Each enclosure includes an equal number of conductors from each phase and the neutral; and
- (c) Each enclosure or cable sheath is of the same material and has the same physical characteristics.

(2) No raceway or compartment of a multiple channel raceway shall contain conductors which are connected to different power or distribution transformers or other different sources of voltage except where the conductors:

- (a) Are separated by the metal armour or metal sheath of cable assemblies of the types listed in Table 19; or
- (b) Are separated by a barrier of sheet steel not less than 0.0528 inch (No. 16 MSG) thick or a flame-retardant nonmetallic insulating material not less than 1.5 millimetres in thickness; or
- (c) Are used for the supply and/or control of remote devices and are insulated for at least the same voltage as that of the circuit having the highest voltage and none of the conductors of the circuits of lower voltages is directly connected to a lighting branch circuit.

#### **12-906 Protection of Conductors at Ends of Raceways**

(1) Bushings or equivalent means shall be used to protect conductors from abrasion where they issue from raceways.

(2) Where conductors are No. 8 AWG or larger copper or aluminum the protection shall consist of:

- (a) Insulated type bushings, unless the equipment is equipped with a hub having a smoothly rounded throat; or
- (b) Insulating material fastened securely in place which will separate the conductors from the raceway fittings and afford adequate resistance to mechanical injury.

#### **12-908 Inserting Conductors in Raceways**

(1) Cleaning agents or lubricants of an electrical conducting nature or that might have a deleterious effect on conductor coverings shall not be used when inserting conductors in raceways.

(2) Lubricants used when inserting conductors in raceways shall be either talc or soapstone or an approved compound.

**12-910 Joints or Splices Within Raceways.** There shall be no joints or splices in conductors or cables within raceways except in the case of busways, wireways, and cable trays and surface raceways with removable covers.

**12-912 Stranding of Conductors.** Except in the case of conductors used as bus bars and mineral-insulated cables, single or multiple conductor cables No. 8 AWG or larger, when installed in raceways, shall be stranded.

**12-914 Electrical Continuity of Raceways.** Metal raceways shall be electrically continuous throughout and electrically secured to all equipment to which they are attached.

**12-916 Mechanical Continuity of Raceways.** Raceways shall be mechanically continuous throughout and mechanically secured to all equipment to which they are attached.

**12-918 Support of Raceways.** Raceways shall be supported independently of equipment forming part of the raceway system.

**12-920 Removal of Fins and Burrs of Raceways.** Fins and burrs shall be removed from the ends of raceways.

#### **12-922 Radii of Bends in Raceways**

(1) Where raceways of the type into which conductors are drawn, are bent during installation, the radius of the curve of the inner edge of the bends shall be at least 6 times the internal diameter of the raceway except that the radius shall be increased to 10 times where lead-sheathed cable or varnished-cambric-insulated conductors are used.

(2) Bends shall be made without undue distortion of the raceways and without injury to its inner or outer surfaces.

**12-924 Junction of Open Wiring and Raceways.** Where conductors connected to open wiring issue from ends of raceways, they shall be protected with approved boxes or with fittings having a separately bushed hole for each conductor.

**12-926 Entry of Underground Conduits into Buildings.** Where a conduit enters a building from an underground distribution system, the end of the conduit within the building shall be sealed with a suitable compound to prevent the entrance of moisture and gases.

#### **12-928 Raceways Installed Underground or Where Moisture May Accumulate**

(1) The requirements for Category 1 locations as specified in Section 22 shall be complied with where raceways are installed:

- (a) Underground;
- (b) In concrete slabs or other masonry in direct contact with moist earth; or
- (c) In other locations where the conductors are subject to moisture.

(2) Where lead-sheathed conductors are used in such locations, a pothead or equivalent device shall

be used to protect them from moisture and mechanical injury at their point of issue from the lead sheathing.

(3) Where raceways are installed underground they shall be buried to a depth of not less than 450 millimetres or, if in an area subject to vehicular traffic, to a depth of not less than 600 millimetres unless rock bottom is encountered at a lesser depth, in which case the raceway shall be entrenched into the rock in a trench not less than 150 millimetres deep and grouted with concrete to the level of the rock surface.

**12-930 Metal Raceways in Plaster.** In buildings of noncombustible construction where circuits run in metal raceways have conductors not larger than No. 10 AWG copper or aluminum, the circuits may be laid on the face of the masonry or other material of which the walls and ceiling are constructed and may be buried in the plaster finish.

**12-932 Protection for Raceways in Lanes.** If subject to mechanical injury and unless otherwise protected, acceptable steel guards of not less than No. 10 MSG, adequately secured, must be installed to protect raceways less than 2 metres above grade in lanes and driveways.

**12-934 Non-metallic Raceways.** Non-metallic raceways shall be flame retardant unless embedded or encased in earth or by at least 50 millimetres of concrete.

#### **12-936 Raceways Installed in Concrete, Cinder Concrete, and Cinder Fill**

(1) Raceways made wholly or in part of aluminum shall not be embedded in concrete containing reinforcing steel unless:

- (a) The concrete is known to contain no chloride additives; or
- (b) The raceway has been treated with an approved bituminous base paint or other approved means to prevent galvanic corrosion of the aluminum.

(2) Where metal raceways are laid in or under cinders or cinder concrete, they shall be protected from corrosive action by a grouting of non-cinder concrete at least 25 millimetres thick entirely surrounding them unless they are 450 millimetres or more under the cinders or cinder concrete.

#### **12-938 Raceway Completely Installed Before Conductors are Installed**

(1) Raceways shall be installed as a complete system before the conductors or cables are installed in them.

(2) Conductors or cables shall not be drawn into or laid in raceways in a building under construction until the raceway fittings and conductors are reasonably safe from damage due to construction operations.

**12-940 Capping of Unused Raceways.** Spare or unused raceways that terminate in enclosures shall be capped.

**12-942 Maximum Number of Bends in Raceways.** Where it is intended that conductors are to be drawn into a raceway, a run of raceway between outlets or draw-in points shall not have more than the equivalent of four 90 degree bends including the bends located at an outlet or fitting.

### Rigid and Flexible Metal Conduit

**12-1000 Rigid and Flexible Metal Conduit Rules.** Rules 12-1000 to 12-1014 apply only to the installation of rigid and flexible metal conduit.

#### 12-1002 Use.

(1) Rigid and flexible metal conduit may be installed in or on buildings or portions of buildings of either combustible or noncombustible construction.

(2) Rigid metal conduit used in damp or wet locations shall be threaded and the joints and fittings shall be made watertight.

(3) Rigid metallic conduit shall not be directly buried in the earth or installed in concrete or masonry slabs in contact with the earth unless a separate grounding conductor is installed therein.

**12-1004 Minimum Size of Conduits.** No conduits having an internal diameter of less than  $\frac{1}{2}$  inch, electrical trade size, shall be used except that:

- (a)  $\frac{7}{16}$  inch and  $\frac{3}{8}$  inch flexible metal conduit may be used for runs of not more than 1.5 metres for the connection of equipment; and
- (b)  $\frac{3}{8}$  inch liquid-tight flexible conduit may be used as permitted by this Code.

#### 12-1006 Conduit Threads

(1) Threads of rigid metal conduit and rigid metal conduit couplings shall be tapered.

(2) External threads shall comply with Table 40.

(3) Running threads shall not be permitted.

(4) Notwithstanding Subrule (3), where rigid metal conduit protrudes through the enclosure wall and there are not sufficient threads to accommodate a bushing per Rule 12-906(1) additional threading shall be permitted on the conduit as a continuation of the tapered thread beyond those dimensions specified in Table 40.

**12-1008 Thread Engagement.** The wall thickness of boxes to be drilled and tapped in the field shall be sufficient to ensure thread engagement of at least three complete threads.

#### 12-1010 Maximum Spacing of Conduit Supports

(1) All rigid metal conduit of one size shall be securely attached to hangers or to a solid surface with the maximum spacings of the points of support not greater than:

- (a) 1.5 metres for  $\frac{1}{2}$  and  $\frac{3}{4}$ -inch conduit;
- (b) 2 metres for 1 and  $1\frac{1}{4}$ -inch conduit;
- (c) 3 metres for  $1\frac{1}{2}$ -inch conduit and larger.

(2) Where rigid metal conduits of mixed sizes are run in a group, the conduit supports shall be so arranged that the maximum support spacing will be that shown in Subrule (1) for the smallest conduit.

(3) Where flexible metal conduit is installed, it shall be secured by approved means at intervals not exceeding 1.5 metres and within 300 millimetres on each side of every outlet box or fitting, except where flexible metal conduit is fished and except for lengths of not over 900 millimetres at terminals where flexibility is necessary.

#### 12-1012 Expansion and Contraction of Conduits

(1) In locations subject to extreme temperature changes, provision shall be made for expansion and contraction in long runs of rigid conduit in the form of:

- (a) Approved expansion joints; or
- (b) In the case of the surface-mounted rigid metal conduit only, two ninety-degree bends in the conduit run.

(2) If expansion joints are used with metal raceways, bonding jumpers shall be provided in accordance with Rule 10-614.

#### 12-1014 Conductors in Conduit

(1) Conduits shall be of sufficient size to permit the conductors to be drawn in and withdrawn without injury to the conductors.

(2) Subrules (3), (4), and (5) refer only to complete systems and not to short sections of conduit used for the protection of portions of open wiring which would otherwise be exposed to mechanical injury.

(3) The maximum number of conductors in one conduit shall not exceed 200.

(4) The maximum number of conductors or multi-conductor cables in one conduit shall be such that the conductors or cables and their coverings will not result in a greater conduit fill than that specified in Table 8, and in this determination:

- (a) The interior cross-sectional area for various sizes of conduit shall be those specified in Table 9;

- (b) The diameter and cross-sectional area for insulated conductors not exceeding 600 volts shall, for the types listed in Table 10, be those specified in Table 10, as applicable;
  - (c) The diameter and cross-sectional area for insulated conductors (other than lead-sheathed cable) not exceeding 600 volts shall, for types not listed in Table 10, be as specified in Columns 2 and 3 of Table 10;
  - (d) The diameter and cross-sectional area for insulated conductors rated over 600 volts shall:
    - (i) If larger, for a given size, than the corresponding value given in Columns 2 and 3 of Table 10, be the nominal outside diameter of the conductor including its coverings and its equivalent area; and
    - (ii) If smaller, be in accordance with Paragraph (b) or (c), as applicable;
  - (e) The diameter and cross-sectional area for bare conductors shall be as specified in Columns 4 and 5 of Table 10;
  - (f) The diameter and cross-sectional area for multi-conductor cables including lead-sheathed cables shall be overall diameter and its equivalent area, or the diameter and area of the equivalent round construction based on its maximum dimensions.
- (5) The maximum number of conductors of the same size in one conduit, based on the requirements of Subrule (4) shall not exceed that shown as follows:
- (a) In Table 6 for single conductors (other than lead-sheathed); or
  - (b) In Table 7 for lead-sheathed conductors or cables.

### **Rigid PVC Conduit and Rigid HFT Conduit**

#### **12-1100 Use**

(1) Rigid PVC and HFT conduit is permitted for exposed and concealed work above and below ground in accordance with the rules for threaded rigid metal conduit subject to the provisions of Rules 12-1102 to 12-1122.

(2) Rigid PVC and HFT conduit is permitted in cinders or cinder concrete without the grouting referred to in Rule 12-936 being required.

#### **12-1102 Restrictions on Use**

- (1) Rigid PVC and HFT conduit shall not be used:
  - (a) In hazardous locations as covered by Section 18;
  - (b) With wiring for exit signs, emergency lighting and fire alarm systems except where embedded

in at least 50 millimetres masonry or poured concrete or installed underground; or

- (c) In buildings required to be of non-combustible construction, unless:
  - (i) it has a flame spread rating and smoke developed classification as specified in the Ontario Building Code; or
  - (ii) it is concealed in a wall or a concrete floor slab.

(2) Rigid PVC conduit shall not be used where enclosed in thermal insulation.

#### **12-1104 Temperature Limitations**

(1) Rigid PVC conduit shall not be used where normal conditions are such that any part of the conduit is subjected to a temperature in excess of 75°C.

(2) Subrule (1) shall not prevent the use of insulated conductors having temperature ratings in excess of 75°C but such conductors shall not have ampacities exceeding those of 90°C conductors, regardless of their temperature rating.

(3) Rigid HFT conduit shall not be used where normal conditions are such that any part of the conduit is subjected to a temperature in excess of 125 degrees Celsius.

**12-1106 Mechanical Protection.** Rigid PVC and HFT conduit shall be protected where exposed to mechanical injury either during installation or afterwards.

#### **12-1108 Field Bends**

(1) Rigid PVC conduit may be bent in the field provided bending equipment specifically intended for the purpose is used.

(2) The minimum bending radius shall comply with Rule 12-922.

(3) Rigid HFT conduit shall not be bent in the field.

**12-1110 Support of Luminaires.** Rigid PVC boxes shall not be used for the support of luminaires unless they are marked as being suitable for the purpose.

#### **12-1112 Fittings**

(1) Rigid PVC and HFT conduit including elbows and bends shall not be threaded but shall be used with approved adapters and couplings which shall be applied in an acceptable manner with approved solvent cement.

(2) Female threaded PVC or HFT adapters shall be used together with a metallic conduit nipple to terminate at threaded conduit entries in metallic enclosures.

**12-1114 Maximum Spacing of Conduit Supports**

(1) All rigid PVC and HFT conduit of one size shall be securely attached to hangers or to a solid surface with the maximum spacing of the points of supports not greater than:

- (a) 750 millimetres for ½, ¾, and 1-inch conduit;
- (b) 1.2 metres for 1¼ and 1½-inch conduit;
- (c) 1.5 metres for 2-inch conduit;
- (d) 1.8 metres for 2½ and 3-inch conduit;
- (e) 2.1 metres for 3½, 4, and 5-inch conduit; and
- (f) 2.5 metres for 6-inch conduit.

(2) Where conduits of mixed sizes are run in a group, the conduit supports shall be arranged so that the maximum support spacing will be that shown in Subrule (1) for the smallest conduit.

(3) Except where encased or embedded in at least 50 millimetres of masonry or poured concrete, conduits shall not be clamped tightly but shall be supported in such a manner as to permit adequate lineal movement to allow for expansion and contraction of the conduit due to temperature change.

**12-1116 Support of Equipment.** Rigid PVC and HFT conduit shall not be used to support fixtures or other equipment except as permitted by Rule 12-3014(2).

**12-1118 Expansion Joints.** Unless the conduit is grouted in concrete, at least one expansion joint shall be installed in any conduit run where the expansion of the conduit due to the maximum probable temperature change during and after installation will exceed 45 millimetres.

**12-1120 Maximum Number of Conductors.** The maximum number of conductors in rigid PVC and HFT conduit shall be determined as for conduit in accordance with Rule 12-1014.

**12-1122 Provision for Bonding.** A separate bonding conductor shall be installed in rigid PVC and HFT conduit in compliance with Rule 10-404.

**Rigid Types EB1 and DB2/ES2 PVC Conduit**

**12-1150 Use Permitted.** Rigid Types EB1 and DB2/ES2 PVC conduit and fittings are permitted to be used:

- (a) For installation underground in accordance with Rule 12-928 except that Type EB1 conduits shall be laid with its entire length encased or embedded in at least a 50 millimetres envelope of masonry or poured concrete; or
- (b) In walls, floors, and ceilings where encased or

embedded in at least 50 millimetres of masonry or poured concrete.

**12-1152 Restrictions in Use.** Rigid Types EB1 and DB2/ES2 conduit and fittings shall not be used:

- (a) Above ground except as permitted by Rule 12-1150(b); or
- (b) In hazardous locations.

**12-1154 Temperature Limitations.** Temperature limitations shall comply with Rule 12-1104.

**12-1156 Field Bends.** Field bends shall comply with Rule 12-1108.

**12-1158 Fittings**

(1) Rigid Types EB1 and DB2/ES2 PVC conduit including elbows, bends, and other fittings fabricated from rigid Type EB1 and DB2/ES2 PVC conduit shall not be threaded.

(2) Notwithstanding Subrule (1), threaded adapters, acceptable for use in making threaded connections when properly attached to the conduit, are permitted to be used.

**12-1160 Maximum Number of Conductors.** The maximum number of conductors in rigid Types EB1 and DB2/ES2 PVC conduit shall be in accordance with Rule 12-1014.

**12-1162 Method of Installation**

(1) All cut edges shall be trimmed to remove rough edges.

(2) All joints between conduit lengths and between conduit lengths and bends, adapters, or separate couplings shall be made by a method specified for the purpose.

(3) Rigid Types EB1 and DB2/ES2 PVC conduit shall be secured mechanically to prevent disturbance of their alignment during construction.

**12-1164 Split Straight Conduit.** In existing underground or concrete embedded installations only, raceways may be formed using split straight conduit provided that:

- (a) Both halves of each conduit length are properly matched and clamped together to form a close-fitting concrete-tight joint;
- (b) Each length of conduit is tightly clamped at each end, with additional clamps spaced not more than 900 millimetres apart; and
- (c) Clamps made of stainless steel or other acceptable corrosion-resistant material are used when not embedded in concrete.

**12-1166 Provision for Bonding.** A separate bonding conductor shall be installed in rigid Types EB1 and DB2/ES2 conduit in compliance with Rule 10-404.

**Rigid Types I and II Non-Metallic Bituminized-Fibre and Asbestos-Cement Conduits**

**12-1200 Scope.** Rules 12-1202 to 12-1214 apply to the installation of rigid non-metallic conduits, Types I and II made of bituminized-fibre or asbestos-cement.

**12-1202 Use Permitted.** Types I and II rigid non-metallic conduit and fittings approved for the purpose may be used:

- (a) For installation underground in accordance with Rule 12-012 for raceways, except that Type I conduit shall be laid with its entire length encased or embedded in at least 50 millimetres of masonry or poured concrete; or
- (b) In walls, floors, and ceilings where encased or embedded in at least 50 millimetres of masonry or poured concrete.

**12-1204 Use Prohibited.** Types I and II rigid non-metallic conduit shall not be used:

- (a) Above ground except as permitted by paragraph (b) of Rule 12-1202;
- (b) Where subject to physical damage; or
- (c) In hazardous locations as covered by Section 18.

**12-1206 Method of Installation**

(1) All cut edges shall be trimmed inside and outside to remove rough edges.

(2) Types I and II rigid non-metallic conduit including elbows and bends shall not be threaded but shall be used with approved adapters and couplings.

(3) All joints between the conduit and couplings, fittings and boxes shall be made by a method and with tools specified for the purpose.

(4) Types I and II rigid non-metallic conduit shall be secured mechanically to prevent disturbance of the alignment during construction.

**12-1208 Split Straight Conduit.** In existing underground or concrete embedded installations only, raceways may be formed using split straight conduit, provided that:

- (a) Both halves of each conduit length are properly matched and clamped together to form a close-fitting concrete-tight joint;
- (b) Each length of conduit is tightly clamped at each end with additional clamps spaced not more than 900 millimetres apart; and

- (c) Clamps made of stainless steel or other corrosion-resistant material are used when not embedded in concrete.

**12-1210 Maximum Number of Conductors.** The maximum number of conductors in Types I and II rigid non-metallic conduit shall be determined as for conduit in accordance with Rule 12-1014.

**12-1212 Temperature Limitations**

(1) Rigid Types I and II non-metallic bituminized-fibre conduit shall not be used where normal conditions are such that any part of the conduit is subjected to a temperature in excess of 80°C unless the conduit is marked to indicate it has a finish suitable for a maximum temperature of 110°C.

(2) Subrule (1) shall not prevent the use of insulated conductors having temperature ratings in excess of 80°C, but such conductors shall not have ampacities exceeding those of 90°C conductors regardless of their temperature rating.

**12-1214 Corrosion Protection for Cables Installed in Asbestos-Cement Conduit.** Metallic materials used as concentric neutrals, sheaths, or armour on cables installed in asbestos-cement conduit shall be protected against corrosion by the application of an acceptable non-metallic covering.

**Liquid-Tight Flexible Conduit**

**12-1300 Scope.** Rules 12-1302 to 12-1306 apply only to Liquid-Tight Flexible Conduit.

**12-1302 Use of Liquid-Tight Flexible Conduit.**

(1) Liquid-tight flexible conduit is permitted where a flexible connection is required in dry, damp or wet locations and where permitted by other Sections of this Code.

(2) Runs of not more than 1.5 metres of 3/8 inch liquid-tight flexible conduit are permitted for the connection of equipment.

(3) Liquid-tight flexible conduit shall not be used:

- (a) Where subject to mechanical damage;
- (b) As a general-purpose raceway;
- (c) In lengths greater than that essential for the degree of flexibility required;
- (d) Where exposed to gasoline or similar light petroleum solvents, corrosive liquids, or vapours having an injurious effect on the outer jacket;
- (e) Under conditions such that the temperature will exceed 60 degrees Celsius unless marked for a higher temperature; or
- (f) Where flexing at low temperatures may cause injury to the flexible conduit.

**12-1304 Maximum Number of Conductors**

(1) The maximum number of conductors in liquid-tight flexible conduit shall be in accordance with Rule 12-1014.

(2) For the purposes of Subrule (1) the cross-sectional area of  $\frac{3}{8}$  inch trade size shall be considered as 0.184 square inches.

**12-1306 Provision for Bonding.** A separate bonding conductor shall be installed in liquid-tight flexible conduit in accordance with Section 10.

**Electrical Metallic Tubing**

**12-1400 Electrical Metallic Tubing Rules.** Rules 12-1402 to 12-1414 apply only to electrical metallic tubing.

**12-1402 Use**

(1) Electrical metallic tubing may be used for exposed and concealed work except that it shall not be used:

- (a) Where it shall be subject to mechanical injury either during installation or afterwards;
- (b) In any hazardous location;
- (c) Where exposed to corrosive vapour except as permitted by Rule 2-112;
- (d) For direct earth burial;
- (e) In wet locations;
- (f) In concrete or masonry slabs in contact with the earth, unless a separate bonding conductor is installed in the tubing.

(2) Electrical metallic tubing may be installed in or on buildings or portions of buildings of either combustible or noncombustible construction.

**12-1404 Supports.** Electrical metallic tubing shall be installed as a complete system and shall be securely fastened in place within 1 metre of each outlet box, junction box, cabinet, coupling or fitting, and the spacing between supports shall be in accordance with those given in Rule 12-1012.

**12-1406 Minimum Tubing Size.** The tubing shall have an internal diameter of not less than  $\frac{1}{2}$  inch electrical trade size.

**12-1408 Maximum Number of Conductors.** A tube shall not contain more conductors of a given size than are specified in the Rule 12-1014.

**12-1410 Connections and Couplings.** Where lengths of electrical metallic tubing are coupled together or connected to boxes, fittings or cabinets, the fittings shall be:

- (a) Of the concrete-tight type for installation in poured concrete or in masonry block walls in which cores are filled with concrete or grout;
- (b) Of the rain-tight type for installations exposed to the weather; and
- (c) Of the standard type, concrete-tight, or rain-tight type for installation in ordinary locations or buried in plaster or masonry block walls.

**12-1412 Radii of Bends in Tubing**

(1) Bends in the tubing shall be made so as not to injure the tubing or reduce its internal diameter.

(2) Where conductors which are not lead-sheathed are used, the radius of the curve of the inner edge of bends made during installation shall be at least 6 times the internal diameter of the tubing.

(3) Where lead-sheathed conductors are used, the radius of the curve of the inner edge of bends made during installation shall be at least 10 times the internal diameter of the tubing.

**Electrical Nonmetallic Tubing**

**12-1500 Electrical Nonmetallic Tubing Rules.** Rules 12-1502 to 12-1516 apply only to electrical non-metallic tubing.

**12-1502 Use**

(1) Electrical nonmetallic tubing is permitted where concealed in walls or encased in concrete.

(2) Electrical nonmetallic tubing is not permitted for use in:

- (a) Unless provided with mechanical protection where subject to damage either during or after construction;
- (b) In any hazardous location;
- (c) For direct burial;
- (d) Where enclosed in thermal insulation; or
- (e) Where exposed.

**12-1504 Supports.** Electrical nonmetallic tubing shall be securely fastened in place within 1 metre of each outlet box, junction box, cabinet, coupling or fitting, and the spacing between supports shall be not more than 1 metre.

**12-1506 Maximum Number of Conductors.** No piece of electrical nonmetallic tubing shall contain more conductors of a given size than are specified in Rule 12-1014.

**12-1508 Temperature Limitations**

- (1) Electrical nonmetallic tubing shall not be used

where normal conditions are such that any part of the tubing is subject to a temperature in excess of 75 degrees Celsius.

(2) Subrule (1) does not prevent the use of insulated conductors having insulation temperature ratings in excess of 75 degrees Celsius, but such conductors shall not have ampacities exceeding those for conductors having insulation rated at 90 degrees Celsius.

**12-1510 Connections and Couplings.** Where lengths of electrical nonmetallic tubing are coupled together or connected to boxes, fittings or cabinets, fittings designed for the purpose shall be used.

**12-1512 Support of Equipment.** Electrical nonmetallic tubing shall not be used to support fixtures or other equipment.

#### **12-1514 Radii of Bends in Tubing**

(1) Bends in tubing shall be made so as not to injure the tubing or reduce its internal diameter.

(2) The radius of the curve of the inner edge of bends made during installation shall be of a least 6 times the internal diameter of the tubing.

**12-1516 Provision for Bonding.** A separate bonding conductor shall be installed in electrical nonmetallic tubing in compliance with Rule 10-404.

### **Surface Raceways**

#### **12-1600 Use**

(1) Surface raceways shall be installed only in dry locations.

(2) Metallic surface raceways less than 0.0309 inch thick and non-metallic surface raceways shall be used only as extensions to wiring systems where:

(a) The voltage between conductors contained therein is not in excess of 300 volts; and

(b) The voltage-to-ground is not in excess of 150 volts.

(3) Surface raceways shall not be used:

(a) Where concealed; or

(b) Where subject to severe physical damage unless approved for the purpose.

(4) Surface raceways shall not be used for:

(a) Conductors larger than No. 2/0 AWG; or

(b) The support of luminaires or lighting equipment.

(5) Non-metallic surface raceways shall not be used under either of the following conditions:

(a) Where the ambient temperature exceeds 50°C; or

(b) With conductors having insulation exceeding 75°C unless conductor ampacity is derated to that of a 75°C conductor.

**12-1602 Joints and Splices.** Joints and splices are permitted in surface raceways having a removable cover that is accessible after installation and shall not fill the raceway to more than 75 per cent of its area at that point.

**12-1604 Supports.** The backing of a surface raceway shall be secured in position in such a manner that the fastening means will not damage conductor insulation.

**12-1606 Provisions for Bonding.** A separate bonding conductor shall be installed in non-metallic surface raceways in compliance with Rule 10-404.

#### **12-1608 Conductors in Surface Raceways**

(1) Conductors used in surface raceways shall be of types indicated in Table 19 as being suitable for use in raceways.

(2) Surface raceways shall contain not more than 200 conductors and the aggregate cross-sectional area of the insulated conductors shall not exceed 40 per cent of the minimum available cross-sectional area of the surface raceway.

(3) The cross-sectional area for conductors in Subrule (2) shall be determined in accordance with Rule 12-1014(4).

#### **12-1610 Surface Raceways through Walls and Floors**

(1) Metallic surface raceways may be extended through walls, partitions, and floors in dry locations only, and shall be in unbroken lengths where passing through.

(2) Non-metallic surface raceways shall be so installed as to not pass through a floor, partition, or wall, although, where necessary, exposed sections may be interconnected by other approved wiring methods.

#### **12-1612 Flat Cable Systems**

(1) Flat cables, consisting of parallel conductors and side wings formed with integral insulation specifically designed for field installation in metal surface raceways with tap fittings and end cap devices shall be used only:

(a) In branch circuits; and

(b) In horizontal runs with the conductors uppermost in the raceway.

(2) Metal surface raceways when used with flat

cables may have covers on the underside omitted when installed out-of-reach.

### **Underfloor Raceways**

#### **12-1700 Where Underfloor Raceways Are Permitted**

(1) Underfloor raceways may be installed under the surface of concrete or other flooring material, but not below the floor.

(2) Underfloor raceways shall not be used:

- (a) Where they will be exposed to corrosive vapours;
- (b) In a hazardous location;
- (c) In commercial garages;
- (d) In storage-battery rooms; or
- (e) On the underside of the floor.

#### **12-1702 Method of Installing Underfloor Raceways**

(1) Underfloor raceways shall be installed in accordance with the manufacturer's instructions in addition to the other requirements of this Rule.

(2) Underfloor raceways shall be laid so that their centre-line coincides with a straight line drawn between the centres of successive junction boxes.

(3) The raceways shall be mechanically secured to prevent disturbance of the alignment during construction.

(4) The joints along the edges of the raceways and between the raceways, couplings, and junction boxes; and between the junction box cover-plates and cover-rings shall be filled with an approved waterproof cement.

(5) The raceways shall be arranged so there are no low points or traps at the fittings or in the raceway run and crossings shall be avoided where possible.

#### **12-1704 Fittings for Underfloor Raceways**

(1) Where underfloor raceways are run at other than right angles, special fittings shall be provided if required.

(2) The raceways shall be connected to distribution centres and wall outlets by conduit or approved fittings.

(3) Dead-ends of the raceways shall terminate in junction boxes or other approved fittings.

**12-1706 Taps and Splices in Underfloor Raceways.** Taps and splices in underfloor raceways shall be made only in header access units or in junction boxes.

#### **12-1708 Inserts and Junction Boxes for Underfloor Raceways**

(1) Inserts and outlets in underfloor raceways shall be made electrically and mechanically secure.

(2) Inserts other than the preset type shall be attached to the raceways and where they are not made mechanically secure by being grouted in separately, they shall not be set until the floor is laid.

(3) Inserts and junction boxes shall be levelled to the grade of the floor and sealed with water-tight plugs.

**12-1710 Setting of Inserts.** When setting inserts or cutting through the walls of underfloor raceways, adequate precautions shall be taken to prevent chips and dirt from falling into the raceway, and special tools designed for the purpose and for preventing the tools from entering the raceway and injuring the conductors shall be used.

**12-1712 Discontinued Outlets in Underfloor Raceways.** Where an outlet in an underfloor raceway is discontinued, the conductors supplying the outlet shall be removed from the underfloor raceway.

#### **12-1714 Area of Conductors in Underfloor Raceways**

(1) The aggregate cross-sectional area of the conductors and their insulation in an underfloor raceway shall not exceed 40 per cent of the interior cross-sectional area of the raceway.

(2) Subrule (1) shall not apply where the raceway contains only mineral-insulated cable, aluminum-sheathed cable, armoured cable, or non-metallic sheathed cable.

(3) The cross-sectional areas for conductors in Subrule (1) shall be determined in accordance with Rule 12-1014(4).

**12-1716 Underfloor Raceway Junction Boxes.** Junction boxes shall not be used as outlet boxes in underfloor raceways.

#### **12-1718 Inserts in Post- and Pre-stressed Concrete Floors**

(1) Where underfloor distribution raceways are used with post-stressed or pre-stressed poured-in-place floors they shall be supplied with preset inserts.

(2) After-set inserts or after-set access units shall not be placed into such a system unless approved by the structural engineer.

### **Cellular Floors**

**12-1800 Installation.** Cellular floors shall be installed in accordance with the manufacturer's instructions.

**12-1802 Conductors in Cellular Floors**

(1) Conductors shall not be installed in a cellular floor raceway:

- (a) Where they will be exposed to corrosive vapours;
- (b) In a hazardous location;
- (c) In commercial garages; or
- (d) In storage-battery rooms.

(2) Conductors shall not be installed in any cell or header which contains a pipe for steam, water, air, gas, drainage, or other non-electrical service.

(3) Where the cell or header contains such non-electrical services, the cell or header shall be sealed, where practicable, in an acceptable manner.

(4) All conductors of a circuit shall be contained in the same cell of a cellular floor and except as permitted by Rule 12-3036, the circuits of different systems shall not be contained therein.

**12-1804 Maximum Conductor Size in Cellular Floors.** No conductor larger than No. 0 AWG copper or aluminum shall be installed in a cellular floor unless the installation is lawful under Rule 2-030.

**12-1806 Cross-Sectional Area of Cellular Floors**

(1) Where a cellular floor contains other than mineral-insulated cable, aluminum-sheathed cable, armoured cable, or non-metallic sheathed cable, the aggregate cross-sectional area of the conductors in the raceway shall not exceed 40 per cent of the interior area of the header feeding the individual cells.

(2) The cross-sectional areas, for conductors in Subrule (1) shall be determined in accordance with Rule 12-1014(4).

**12-1808 Taps and Splices in Cellular Floors.** Splices and taps in cellular floors shall be made only in header access-units or in junction boxes.

**12-1810 Cellular Floor Markers.** Where cellular floors are used, a suitable number of markers shall be installed for the future location of cells and for a system identification, and the markers shall extend through the floor.

**12-1812 Cellular Floor Junction Boxes**

(1) Junction boxes used in cellular floors shall be levelled to floor grade and sealed against the entrance of water.

(2) The junction boxes shall be constructed of metal and shall be electrically continuous with the headers.

(3) Electrical continuity of cellular metal-floor raceway sections shall be obtained by spot welding or other equivalent means.

(4) Spot welding shall be done in open spaces between cells and not to the cell walls.

**12-1814 Provisions for Bonding**

(1) A separate bonding conductor shall be installed in electrical cells and headers and shall be sized in accordance with Table 16.

(2) Metallic headers, cells and fittings shall be bonded to ground in accordance with Rule 10-500.

**12-1816 Cellular Floor Inserts**

(1) Inserts in cellular floors shall be levelled to floor grade and sealed against entrance of water.

(2) Inserts shall be made of metal and shall be electrically continuous with the cellular metal-floor members.

(3) When setting inserts or cutting through cell walls adequate precautions shall be taken to prevent chips and dirt from falling into the cell and for preventing tools from entering the cells and injuring the conductors therein.

**12-1818 Cellular Floor Extensions.** Connections from cellular floors to cabinets and extensions from cells to outlets shall be made by means of rigid conduit, flexible metal conduit, or fittings approved for the purpose.

**12-1820 Cellular Floor Discontinued Outlets.** Where an outlet is discontinued the conductors supplying the outlet shall be removed from the cellular floor.

**Auxiliary Gutters****12-1900 Where Auxiliary Gutters are Used to Supplement Wiring Spaces**

(1) Where auxiliary gutters are used to supplement wiring spaces at meter centres, distribution centres, switchboards, and similar points in interior-wiring systems, the gutters may enclose conductors and cables but they shall not be used to enclose bus bars, switches, overcurrent devices, or other appliances or apparatus.

(2) The auxiliary gutters shall not extend more than 6 metres beyond the equipment which they supplement, and thereafter the conductors may be contained in approved wireways or busways.

**12-1902 Auxiliary Gutter Supports.** Auxiliary gutters shall be securely supported throughout their entire length at intervals of not more than 1.5 metres unless the gutter is plainly marked to indicate a greater distance.

**12-1904 Auxiliary Gutter Cross-Sectional Area**

(1) The aggregate cross-sectional area of the conductors and their insulation at a cross-section of an auxiliary gutter shall not exceed 20 per cent of the cross-sectional area of the gutter at that point.

(2) A single compartment of an auxiliary gutter shall not contain more than 200 conductors at a cross-section.

(3) The cross-sectional areas for conductors in Subrule (1) shall be determined in accordance with Rule 12-1014(4).

**Busways and Splitters****12-2000 Use**

(1) Busways and splitters may be used only for exposed work except as permitted in Subrules (5) and (6) of this Rule.

(2) Busways and splitters shall not be installed outdoors or in wet or damp locations, unless specifically approved for use in such locations.

(3) Busways, splitters and fittings shall not be placed:

- (a) Where subject to mechanical injury;
- (b) Where subject to corrosive vapours;
- (c) In hoistways;
- (d) In hazardous locations; or
- (e) In storage-battery rooms.

(4) Busways may be used as risers in buildings of noncombustible construction when provided with acceptable fire stops.

(5) Busways may be installed in false ceiling spaces provided that the installation is lawful under Rule 2-030 and that,

- (a) Ventilation is adequate to prevent development of ambient temperatures in excess of 30°C, otherwise the rating of the busway shall be reduced to 82, 71, and 58 per cent for ambients of 40°C, 45°C, or 50°C respectively, but in no case shall the ambient be higher than 50°C;
- (b) Any take-off devices located in the false ceiling do not contain overcurrent protection;
- (c) Adequate working space exists between the busway and other services or structural parts;
- (d) The busway is of the totally-enclosed type except that ventilated type may be used provided that, in addition:
  - (i) The bus bars are insulated for their full length, including joints between sections,

unless provision is made which effectively fully encloses the bare bus bars;

(ii) The false ceiling is not combustible; and

(iii) No combustible material is located within 150 millimetres of the busway;

(e) If installed in areas used for the building ventilation system, the busway is of the totally-enclosed type.

(6) A splitter with a separate screw or stud for each connection shall be installed, in a readily accessible location, where two or more conductors are connected to a conductor larger than No. 6 AWG copper or No. 4 AWG aluminum.

(7) Splitters may be installed flush in a wall provided they are accessible by removable covers.

**12-2002 Extensions from Busways and Splitters.**

Rigid conduit, flexible metal conduit, surface raceways, cable trays, electrical metallic tubing, armoured cable, metal-sheathed conductors or cable, or, where necessary, acceptable cord assemblies approved for hard usage, shall be used in extensions from busways and splitters and shall be connected to the busway or splitter in a manner appropriate to the material used in accordance with Rule 12-3026.

**12-2004 AC Circuits in Busways and Splitters.**

Where alternating current is used, all conductors of a circuit shall be placed within the same busway, splitter or section thereof, if the latter is made of magnetic material.

**12-2006 Busway and Splitter Supports**

(1) Busways installed horizontally shall be supported at intervals not greater than 1.5 metres unless marked for support at greater intervals.

(2) Busways installed vertically shall be marked for vertical installation.

(3) Busways installed vertically shall be supported at each floor and at an interval not greater than 1.5 metres unless marked for support at greater intervals.

(4) Busways shall be installed so that supports and joints are accessible for maintenance purposes after installation.

(5) Splitters shall be supported at intervals not greater than 1.5 metres unless marked for support at greater intervals.

**12-2008 Method of Installation of Busways**

(1) Where busways extend transversely through dry walls or partitions, they shall pass through the walls or partitions in unbroken lengths and shall be totally enclosed where passing through walls or partitions constructed of combustible materials or masonry walls containing voids at the point where the busway passes through.

(2) Busways may extend vertically through floors in dry locations if they are:

(a) Totally enclosed where passing through the floor and for the first 300 millimetres above the floor; and

(b) Provided with acceptable fire stops.

(3) Busways shall be provided with adequate protection against mechanical injury and personal contact with live parts for a distance of 2 metres above any floor in an area accessible to other than qualified persons.

(4) Dead ends of busways shall be closed by approved fittings.

(5) Busways installed outdoors or in parking areas and which are accessible to other than authorized persons shall be of the totally enclosed type.

**12-2010 Plug-In Devices for Busways.** When busways supply machine tools, a switch need not be furnished on the machine tool if:

(a) A plug-in device having a horsepower rating is used; and

(b) The means of operating the plug-in device is readily within reach of the operator.

**12-2012 Reduction in Size of Busways.** Overcurrent protection may be omitted at points where busways are reduced in size, provided that the smaller busway:

(a) Does not extend more than 15 metres;

(b) Has a current rating at least equal to one-third the rating or setting of the overcurrent devices next back on the line;

(c) Is free from contact with combustible material; and

(d) Has an ampacity adequate for the intended load.

**12-2014 Length of Busways Used as Branch Circuits**

(1) Busways which are used as branch circuits, and which are designed so that loads can be connected at any point, shall be limited to such lengths as will provide that in normal use the circuits will not be overloaded.

(2) In general, the length of such run in feet should not exceed 3 times the ampere rating of the branch circuit.

**12-2016 Manufacturer's Identification on Busways and Splitters.** Busways and splitters shall be marked so that the manufacturer's name, trade mark, or other recognized symbol of identification shall be readily legible when the installation is completed.

**12-2018 Taps in Splitters.** Taps from bus bars or terminal blocks in splitters shall issue from the box on the side thereof nearest to the terminal connections and the conductors shall not be brought into contact with uninsulated current-carrying parts of opposite polarity.

**12-2020 Circuit Restrictions in Splitters.** Splitters shall be used only for the purpose of making connections to the bus bars or terminal blocks and shall not be used as a pull box for the conductors of other circuits not connected to the main distribution terminals within the box.

**12-2022 Bus Bars in Splitters.** Where a splitter exceeds 2 metres in length or the connected load exceeds 600 amperes, a splitter, if used, shall be provided with bus bars extending approximately the full length of the enclosure.

### Wireways

**12-2100 Where Wireways May Be Used**

(1) Wireways may be used only for exposed work and shall not be installed outdoors, or in wet or damp locations, unless specifically approved for such locations.

(2) Wireways and fittings shall not be placed:

(a) Where subject to mechanical injury;

(b) Where subject to corrosive vapours;

(c) In hoistways;

(d) In hazardous locations; or

(e) In storage-battery rooms.

(3) Wireways may be used as risers in buildings of noncombustible construction when provided with acceptable fire stops.

**12-2102 Method of Installation of Wireways**

(1) Where wireways extend transversely through dry walls or partitions, they shall pass through the walls or partitions in unbroken lengths.

(2) Wireways shall be securely supported at intervals of not more than 5 feet, unless they are plainly marked to indicate greater distances.

(3) Dead-ends of wireways shall be closed by approved fittings.

(4) Wireways shall be provided with adequate protection against mechanical injury for a distance of 2 metres above any floor in an area accessible to other than qualified persons.

**12-2104 Conductors in Wireways**

(1) Conductors used in wireways shall be the insulated types indicated in Table 19 as being suitable for use in raceways.

(2) Except as permitted in Subrule (4) wireways shall contain not more than 200 conductors and the aggregate cross-sectional area of the conductors and their insulation shall not exceed 20 per cent of the interior cross-sectional area of the wireway.

(3) No conductors larger than 500 MCM copper or 750 MCM aluminum shall be contained in any wireway.

(4) Wireways containing only signal and control conductors may contain any number of conductors but the aggregate cross-sectional area of the conductors and their insulation shall not exceed 40 per cent of the interior cross-sectional area of the wireway.

(5) The cross-sectional area for conductors in Subrules (2) and (4) shall be determined in accordance with Rule 12-1014(4).

**12-2106 Taps and Splices in Wireways.** Where splices and taps are made on feeders or branch circuits within wireways, they shall be made and insulated by acceptable methods and shall be made accessible.

**12-2108 Extensions from Wireways.** Rigid conduit, flexible metal conduit, surface raceways, cable trays, electrical metallic tubing, armoured cable, metal-sheathed conductors or cable, or, where necessary, acceptable cord assemblies approved for hard usage, shall be used in extensions from wireways and shall be connected to the wireway in a manner appropriate to the material used in accordance with Rule 12-3026.

**12-2110 AC Circuits in Wireways.** Where alternating current is used, all conductors of a circuit shall be placed within the same wireway, or section, thereof, if the latter is made of magnetic material.

**12-2112 Manufacturer's Identification on Wireways.** Wireways shall be marked so that the manufacturer's name, trade mark, or other recognized symbol of identification shall be readily legible when the installation is completed.

### Cable Trays

**12-2200 Restriction of Use.** Cable trays shall not be used in any hazardous location except as permitted by Rule 18-068.

### 12-2202 Method of Installation

(1) Cable trays shall be installed as a complete system using fittings or other acceptable means to provide adequate cable support and bending radius before the conductors are installed.

(2) The maximum design load and associated support spacing shall not exceed the values specified in Table 42.

(3) Cable trays shall not pass through walls except where the walls are constructed of noncombustible material.

(4) Cable trays may extend vertically through floors in dry locations, if provided with acceptable fire stops, and if totally enclosed where passing through and for a minimum distance of 2 metres above the floor to provide adequate protection from mechanical injury.

(5) Cable trays shall be adequately supported by noncombustible supports.

(6) Dead ends of cable trays shall be closed by the use of proper fittings.

(7) The minimum clearances for cable trays shall be:

- (a) 150 millimetres vertical clearance, excluding depth of cable trays, between cable trays installed in tiers except where cables of 2-inch diameter or greater may be installed, the clearance shall be 300 millimetres;
- (b) 300 millimetres vertical clearance from the top of the cable tray to all ceilings, heating ducts and heating equipment and 150 millimetres for short length obstruction; and
- (c) 600 millimetres horizontal clearance on one side of cable trays mounted adjacent to one another or to walls or other obstructions.

**12-2204 Conductors in Cable Trays.** Conductors for use in cable trays shall be listed in Table 19 and except as permitted in Subrules (1) and (2) shall have a continuous metal sheath or interlocking armour.

(1) Type TC tray cable shall be permitted in cable trays in areas of industrial establishments which are inaccessible to the public provided the cable is:

- (a) installed in conduit or other suitable raceway when not in cable tray;
- (b) provided with mechanical protection where subject to damage either during or after installation;
- (c) be no smaller than 1/0 AWG if single conductor; and
- (d) installed only where qualified persons service the installation.

(2) Conductors having moisture-resistant insulation and flame tested non-metal coverings or sheaths of a type listed in Table 19 shall be permitted in ventilated or non-ventilated cable trays where not subject to damage during or after installation in:

- (a) electrical equipment vaults and service rooms; and
- (b) in other locations that are inaccessible to the public and constructed as a service room if the presence of the conductors in the cable trays in such other locations is lawful under Rule 2-030.

(3) Single conductors shall be fastened to prevent excessive movement due to fault-current magnetic forces.

(4) Where single conductors are fastened to cable trays, precautions shall be taken to prevent overheating of the fasteners due to induction.

**12-2206 Joint and Splices Within Cable Trays.** Where joints and splices are made on feeders or branch circuits within cable trays, they shall be made and insulated by acceptable methods and shall be in accessible locations.

**12-2208 Connection to Other Wiring Methods.** Where cable trays are connected to other wiring methods, the arrangement shall be such that the conductors will not be subject to mechanical damage or abrasion, and such that effective bonding will be maintained.

#### 12-2210 Provision for Bonding

(1) Where metal supports for cable trays are bolted to the tray and are in good electrical contact with the grounded structural metal frame of a building, the tray shall be deemed to be bonded to ground.

(2) Where the conditions of Subrule (1) do not apply, the cable tray shall be adequately bonded at intervals not exceeding 15 metres and the size of bonding conductors shall be based on the maximum rating or setting of an overcurrent device in the circuits carried by the cable tray in accordance with the requirements of Rule 10-814.

#### 12-2212 Ampacities of Conductors in Cable Trays

(1) In ventilated and ladder-type cable trays, where the air space between conductors, cables, or both is maintained at greater than 100 per cent of the largest conductor or cable diameter, the ampacity of the conductors or cables shall be the value specified in Paragraph (a) or (b):

- (a) Single conductors, single-conductor metal-sheathed or armoured cable and single-conductor-mineral-insulated cable, as specified in Tables 1 and 3; and
- (b) Multiconductor cables as specified in Tables 2 and 4, multiplied by the correction factors in Table 5C for the number of conductors in each cable.

(2) In ventilated and ladder-type cable trays, where the air space between conductors, cables or both is maintained at not less than 25 per cent or more than 100 per cent of the largest conductor or cable diameter, the ampacity of the conductors or cables shall be the value specified in Subrule (1) multiplied by the correction factor specified in Table 5D for the arrangement and number of conductors or cables involved or the value specified in Subrule (1) multiplied by such other correction factor as is lawful under Rule 2-030.

(3) In ventilated and ladder-type cable trays, where the air space between conductors, cables or both is less than 25 per cent, and for any spacing in a non-ventilated cable tray, the ampacity of the conductors or cables shall be the value as specified in Table 2 or 4 multiplied by the correction factor specified in Table 5C for the total number of conductors in the cable tray.

(4) In determining the total number of conductors in the cable tray in Subrule (3), Rule 4-004 (7) shall apply.

(5) Where cable trays are located in room temperatures above 30°C the temperature correction factor of Table 5A shall be applied to the ampacities determined from Subrules (1), (2), and (3) as applicable.

### Lighting Fixture Raceways

#### 12-2300 Use

(1) Lighting fixture raceways shall be installed only in dry locations.

(2) Lighting fixture raceways less than 0.0309 inch in thickness shall be used only where the voltage does not exceed 300 volts between conductors or 150 volts-to-ground.

**12-2302 Conductors.** Lighting fixture raceways shall not be used for:

- (a) Conductors larger than No. 6 AWG copper or aluminum;
- (b) A greater number of conductors for which it is approved;
- (c) More than 10 conductors; and
- (d) Conductors with insulation rated less than 75°C.

#### 12-2304 Support

(1) Lighting fixture raceways shall be supported in accordance with the Manufacturer's instructions.

(2) Lighting fixture raceways shall support the weight of lighting fixtures in accordance with the Manufacturer's instructions.

#### 12-2306 Fittings

(1) Where a lighting fixture raceway is mounted with the open side of the channel down, fittings approved for the purpose shall be used for holding the conductors in place when the cover is not in position.

(2) At areas where the lighting fixture raceway is intended for the connection of rigid conduit, EMT, armoured cable, or similar wiring methods the metal shall not be less than 0.0309 inch in thickness.

#### 12-2308 Flat Cable Systems

(1) Flat cables consisting of parallel conductors and

side wings formed with integral insulation specifically designed for field installation in lighting fixture raceways with tap fittings and end cap devices shall be used only:

- (a) In branch circuits; and
- (b) In horizontal runs with the conductors uppermost in the raceways.

(2) Lighting fixture raceways when used with flat cables may have covers on the underside omitted when installed out-of-reach.

### **Rigid RE Conduit**

**12-2400 Rigid RE Conduit Rules.** Rules 12-2400 to 12-2412 apply only to rigid RE conduit.

**12-2402 Use Permitted.** Rigid RE conduit, adapters, separate couplings and bends approved for the purpose may be used:

- (a) For installation underground in accordance with Rule 12-012 for raceways; or
- (b) In walls, floors, and ceilings where encased or embedded in at least 50 millimetres of masonry or poured concrete.

**12-2404 Use Prohibited.** Rigid RE conduit shall not be used:

- (a) Above ground except as permitted by Paragraph (b) of Rule 12-2402; or
- (b) In hazardous locations as covered by Section 18.

### **12-2406 Method of Installation**

(1) All cut edges shall be trimmed to remove rough edges.

(2) Rigid RE conduit, separate couplings and bends shall not be threaded.

(3) All joints between conduit lengths and between conduit lengths and bends, adapters, or separate couplings shall be made by a method specified for the purpose.

**12-2408 Fittings.** Rigid RE conduit separate couplings and bends shall be used with approved adapters.

**12-2410 Temperature Limitations.** Rigid RE conduit shall not be used where normal conditions are such that any part of the conduit is subjected to a temperature in excess of 110°C.

**12-2412 Maximum Number of Conductors.** The maximum number of conductors in rigid RE conduit shall be determined as for conduit in accordance with Rule 12-1014.

## **INSTALLATION OF BOXES, CABINETS, OUTLETS AND TERMINAL FITTINGS**

### **12-3000 Maximum Number of Outlets Per Circuit**

(1) There shall be not more than 12 outlets on any 2-wire branch circuit except as permitted by other Rules of this Code.

(2) Such outlets shall be considered to be rated at not less than one ampere per outlet except as permitted by Subrule (3).

(3) Where the connected load is known, the number of outlets may exceed 12 providing the load current does not exceed 80 per cent of the rating of the overcurrent device protecting the circuit.

(4) Where fixed multi-outlet assemblies are used, each 1.5 metres or fraction thereof of each separate and continuous length shall be counted as one outlet but, in locations where a number of electrical appliances are likely to be used simultaneously, each 300 millimetres or fraction thereof shall be counted as one outlet.

### **12-3002 Outlet Boxes**

(1) An approved box or an equivalent device shall be installed at every point of outlet, switch or junction of conduit, raceways, armoured cable, or non-metallic sheathed cable, and at every point of outlet and switch of concealed knob-and-tube work.

(2) Non-metallic outlet boxes shall not be used in wiring methods using metallic raceways, armoured or metal sheathed cable, except where the boxes are provided with bonding connections between all conductor entry openings.

(3) The box shall be provided with a cover or a fixture canopy.

(4) At least 150 millimetres of free conductor shall be left at each outlet for making of joints or the connection of fixtures, unless the conductors are intended to loop through lampholders, receptacles, or similar devices without joints.

(5) Notwithstanding the requirements of Subrule (1), an outlet box may be omitted where equipment has its own integral connection box or has been approved for use as a connection box.

### **12-3006 Terminal Fittings**

(1) Where conductors are run from the ends of conduit, armoured cable, surface raceways, or non-metallic sheathed cable to appliances or open wiring, an outlet fitting or terminal fitting may be used instead of the box required by Rule 12-3002, and the conductors shall be run without splice, tap, or joint within the fitting.

(2) The fitting shall have a separately bushed hole for each conductor.

(3) The fittings shall not be used at outlets for fixtures.

**12-3008 Terminal Fittings Behind Switchboards.** Where conductors issue from conduit behind a switchboard or more than 8 conductors issue from a conduit at control apparatus or a similar location an insulating bushing may be used instead of the box required by Rule 12-3002.

#### 12-3010 Boxes in Concrete Construction

(1) Where used in concrete slab construction, ceiling outlet boxes shall have knockouts spaced above the free or lower edge of the boxes a distance of at least twice the diameter of the steel reinforcing bars so that conduit entering the knockouts shall clear the bars without offsetting.

(2) Sectional boxes shall not be used embedded in concrete or masonry construction.

(3) Boxes made wholly or in part of aluminum shall not be embedded in concrete containing reinforcing steel unless:

- (a) The concrete is known to contain no chloride additives; or
- (b) The box has been treated with an approved bituminous base paint or other approved means to prevent galvanic corrosion of the aluminum.

#### 12-3012 Outlet Box Supports

(1) Except as permitted by Subrule (6), boxes and fittings shall be firmly secured to studs, joists or similar fixed structural units other than wooden, metal or composition lath, in accordance with this rule.

(2) Where ganged sectional boxes are used, they shall be secured to metal supports or to wooden boards at least 19 millimetres thick which are rigidly secured to the structural units.

(3) Where boxes having any dimensions greater than four inches are used, they shall be secured on at least two sides or be secured to metal supports or to wooden boards at least 19 millimetres thick which are rigidly secured to the structural units.

(4) Where boxes are mounted on metal studs additional support shall be provided to prevent the movement of the boxes after drywall is installed.

(5) Mounting nails or screws shall not pass through the interior of an outlet box unless:

- (a) The nails or screws are located so as not to be more than 6.4 millimetres from the back or ends of the box; and
- (b) The nails or screws are located so they will not interfere with the conductors or connectors.

(6) This rule shall not apply to boxes and fittings installed after the studs, joists or structural units have been concealed.

#### 12-3014 Boxes, Cabinets, and Fitting Supports

(1) Boxes, cabinets, and fittings shall be fastened securely in place.

(2) Boxes and fittings having a volume of less than 100 cubic inches may be attached to a firmly secured exposed raceway by threading or other acceptable means of connection.

#### 12-3016 Accessibility of Junction Boxes

(1) Pull-in, junction, and outlet boxes, cabinets and gutters, and joints in wires and cables shall be accessible.

(2) A vertical space of 900 millimetres or more shall be required to provide ready access.

#### 12-3018 Flush Boxes, Cabinets, and Fittings

(1) The front edges of boxes, cabinets and fittings installed in walls or ceiling shall not be set in more than 6 millimetres from the finished surface, and where the walls or ceilings are of wood or other combustible material, shall be flush with the finished surface or shall project therefrom.

(2) Gaps or open spaces in plaster surfaces of walls or ceilings shall be filled in around the front edges of boxes, cabinets, and fittings.

**12-3020 Outlet Boxes Attached to Existing Plaster Work.** Where outlet boxes installed as additions to existing work are mounted directly upon existing plaster surfaces they shall be fastened securely in place.

**12-3022 Outlet Boxes, etc., in Damp Places.** Where boxes, cabinets, and fittings are installed in damp places they shall be so placed or constructed as to prevent moisture from entering and accumulating therein.

#### 12-3026 Entrance of Conductors into Boxes, Cabinets, and Fittings

(1) Where conductors pass through the walls of boxes, cabinets, or fittings, provision shall be made to:

- (a) Protect the insulation on the conductors from injury;
- (b) Protect terminal connections from external strain;
- (c) Provide electrical continuity between a metal box, cabinet, or fitting and conduit, armour, or metal sheathing of conductors, whether or not the armour or metal sheathing is to be used as a grounding conductor;
- (d) Prevent injury to a non-metallic sheath applied over armour or metal sheathing for protection against moisture or corrosion; and
- (e) Close the openings through which the conductors pass in such a manner that any remaining opening will not permit entrance of a test rod 17/64 inch in diameter.

(2) Where conductors run as open wiring enter a box, cabinet or fitting they shall pass through insulating bushings or be installed in raceways or acceptable insulating tubing.

(3) Where non-metallic sheathed cable enters a box, cabinet, or fitting, a box connector, either as a separate device approved for use with such cable or as part of the box, cabinet, or fitting, shall be used to secure the cable in place adequately and without injury to the conductors.

(4) Where rigid or flexible metal conduit, electrical metallic tubing, or armoured cable enter boxes, cabinets, or fittings, they shall be secured in place in accordance with the requirements of Section 10.

(5) Where metal sheathed conductors enter boxes, cabinets, or fittings, the box connector shall be installed in a manner which will meet the requirements of Section 10 without injury to the conductors and shall be of a type approved specifically for the cable.

(6) Where liquid-tight flexible metal conduit or where flexible metal conduit, armoured cable, or metal-sheathed cable of a type having a non-metallic sheath over the armour or metal sheath enters a box, cabinet, or fitting, the box connector shall be of a type specifically approved for the purpose and shall ensure electrical continuity without injury to the non-metallic sheath unless the point of connection is in a dry location free from corrosive atmosphere, where the non-metallic sheath may be stripped back a sufficient distance.

(7) Where single conductor cables enter metal boxes through separate openings, precaution shall be taken to prevent overheating of the metal by induction if the current carried per conductor exceeds 200 amperes.

(8) Precautions to be taken to prevent overheating of the metal by induction shall include the use of non-ferrous or non-metallic box connectors, lock nuts and bushings and if non-ferrous metal plates or insulating plates are field installed, they shall be at least ¼ inch thick or such lesser thickness as is lawful under Rule 2-030.

**12-3028 Unused Openings in Boxes, Cabinets and Fittings.** Unused openings in boxes, cabinets, and fittings shall be effectively closed by plugs or plates affording protection substantially equivalent to that of the wall of the box, cabinet, or fitting.

#### 12-3030 Extensions From Existing Outlets

(1) Where a surface extension is made from an existing outlet of concealed wiring, a box or an extension-ring shall be mounted over the original box and electrically and mechanically secured to it.

(2) The extension shall then be connected to the box or extension-ring in the manner prescribed by this Section for the method of wiring employed in making the extension.

#### 12-3032 Multi-Outlet Assemblies

(1) Multi-outlet assemblies shall only be used in

normally dry locations as extensions to wiring systems.

(2) Multi-outlet assemblies shall not be used in any bathroom, kitchen, or any place where the assembly would be subject to mechanical injury.

(3) Multi-outlet assemblies may be carried through but not run within dry partitions provided that:

- (a) No outlet falls within the partition;
  - (b) The removal of any cap or cover necessary for proper installation is not prevented; and
  - (c) The assembly is of metallic construction or, if of non-metallic construction, is surrounded by a metal duct or the equivalent.
- (4) Multi-outlet assemblies shall not be concealed within the building finish but:
- (a) The back and sides of metal assemblies may be set in plaster applied after the assembly is in place; or
  - (b) The back and sides of non-metallic assemblies may be set in a preformed recess in the building finish; and
  - (c) Either may be recessed in a baseboard or other wood trim member.

#### 12-3034 Conductors in Boxes, Cabinets or Fittings

(1) Conductors which are connected to different power or distribution transformers or other different sources of voltage shall not be installed in the same box, cabinet or fitting unless:

- (a) A barrier of sheet steel not less than 0.0528 inch (No. 16 MSG) thick or a flame-retardant non-metallic insulating material not less than 1/16 inch in thickness is used to divide the space into separate compartments for the conductors of each system;
- (b) The conductors are used for the supply and/or control of remote devices and are insulated for at least the same voltage as that of the circuit having the highest voltage and none of the conductors of the circuits of lower voltages is directly connected to a lighting branch circuit; or
- (c) The conductors are used for the supply of a double-throw switch in an emergency lighting system.

(2) Where a barrier is used, it shall be fastened rigidly to the box, cabinet or fitting, or an approved device assuring positive separation of the conductors shall be used.

#### 12-3036 Wiring Space in Enclosures

(1) Enclosures for overcurrent devices, controllers, and externally operated switches shall not be used as junction boxes, troughs, or raceways for conductors feeding through to other apparatus.

(2) Notwithstanding Subrule (1) of this Rule, where such an enclosure is approved with connectors or the equivalent, each providing an independent clamping means for each conductor and each clamping means being independently accessible for tightening or inspection, a single feeder supplying another enclosure may be tapped from it.

(3) Conductors entering enclosures shall enter such enclosures as near as practicable to their terminal fittings.

#### 12-3038 Maximum Number of Conductors in a Box

(1) Boxes shall be of sufficient size to provide usable space for all insulated conductors contained in the box, subject to the following:

- (a) A conductor running through a box with no connection therein shall be considered as one conductor;
- (b) Each conductor entering or leaving a box and connected to a terminal or connector within the box shall be considered as one conductor;
- (c) A conductor of which no part leaves the box shall not be counted; and
- (d) No. 18 and No. 16 AWG fixture wires supplying a lighting fixture mounted on the box containing the fixture wires shall not be counted.

(2) Except as specified in Subrule (3) and subject to the details given in Subrule (1), boxes of the nominal dimensions given in Table 23 shall not contain more insulated conductors of a given size than permitted by the Table, and the number of conductors shall be reduced for each of the following conditions as applicable:

- (a) One conductor if the box contains one or more fixture studs, hickey;
- (b) One conductor for every pair of wire connectors with insulating caps (no deduction for one wire connector, deduct one conductor for 2 or 3 wire connectors, two conductors for 4 or 5 wire connectors, etc.);
- (c) Two conductors if the box contains one or more flush devices mounted on a single strap.

(3) Where a box contains a device having a dimension greater than 1 inch between the mounting strap and back of the device, the total usable space shall be reduced by the space occupied by the device, calculated as 5 cubic inches multiplied by the depth of the device in inches (for example, a device having a depth of 1½ inches would occupy a space of 7½ cubic inches, that is 5 times 1½).

(4) Subject to the details given in Subrules (1) and (3), boxes having nominal dimensions other than those shown in Table 23 shall have the amount of usable

space per insulated conductor as specified in Table 22, but the number of conductors so calculated shall be reduced by one for each of the conditions of Subrule (2) as applicable.

(5) The total usable space in a box considered under Table 22, shall be considered to be the internal volume of the box and shall disregard any space occupied by locknuts, bushings, cable connectors, or clamps.

(6) Where sectional boxes are ganged or where plaster rings, extension rings or raised covers are used in conjunction with boxes, ganged or otherwise, and are marked with their volume measurement, the space in the box shall be the total volume of the assembled sections.

#### 12-3040 Pull Box or Junction Box Sizes

(1) For the purposes of sub-rule (2) the equivalent cable to trade size of raceway shall be the minimum trade size raceway that would be required for the number and size of conductors in the cable.

(2) Where a pull or junction box is used with raceways containing conductors of No. 4 AWG or larger or with cables containing conductors No. 4 AWG or larger the box shall:

- (a) For a raceway or cable entering the wall of a box opposite to the removable cover, have a distance from the wall to the cover not less than the trade diameter of the largest raceway or equivalent cable plus 6 times the diameter of the largest conductor; and
- (b) For straight pulls or runs of cables, have a length of at least 8 times the trade diameter of the largest raceway or equivalent cable; and
- (c) For angle and U pulls or runs of cables,
  - (i) Have a distance between each raceway or cable entry inside the box in the opposite wall of the box of at least 6 times the trade diameter of the largest raceway or equivalent cable, plus some of the trade diameters of all other raceways or equivalent cables on the same wall that the box; and
  - (ii) Have a distance between the nearest edges of each raceway or equivalent cable entry enclosing the same conductor of at least:
    - (A) Six times the trade diameter of the raceway or equivalent cable; or
    - (B) Six times the trade diameter of the larger raceway or equivalent cable if they are of different sizes.

**SECTION 14—PROTECTION AND CONTROL****Scope**

**14-000 Scope.** This Section covers the protection and control of electrical circuits and apparatus installed in accordance with the requirements of this Section and other Sections of this Code.

**General Requirements**

**14-010 Protective and Control Devices Required.** Electrical apparatus and ungrounded conductors shall, except as otherwise provided for in this Section or in other Sections dealing with specific equipment, be provided with:

- (a) Approved devices for the purpose of automatically opening the electrical circuit thereto:
  - (i) If the current therein reaches a value which will produce a dangerous temperature in the apparatus or conductor; and
  - (ii) In the event of a ground fault, in accordance with Rule 14-102; and
- (b) Manually operable control devices which will safely disconnect all ungrounded conductors of the circuit at the point of supply simultaneously, except for multi-wire branch circuits which in other than single family dwellings have each load connected to the neutral and one ungrounded conductor;
- (c) Approved devices which, when necessary will open the electrical circuit thereto in the event of failure of voltage in such circuit.

**14-012 Types and Ratings of Protective and Control Devices**

(1) Circuit breakers, fuses, and switches shall be of acceptable types and ratings.

(2) Overcurrent protective devices shall ensure safe operation and shall have interrupting capacity sufficient for the voltage employed and for the anticipated fault current which must be interrupted.

**14-014 Connection of Devices.** Devices required by this Section shall not be connected in any grounded conductors except where:

- (a) The devices simultaneously or previously disconnect all ungrounded conductors;
- (b) An overcurrent device is in a 2-wire circuit having one wire grounded and there is a possibility that the grounded conductor may assume a voltage difference between itself and ground, due to unreliable grounding conditions, of sufficient magnitude to create a dangerous condition; or
- (c) Overcurrent devices are located in that part of a circuit that is connected by a 2-pole polarized or unpolarized attachment plug provided that

the circuit is rated 15 amperes, 125 volts or less.

**Protective Devices****General**

**14-100 Overcurrent Devices Required.** Each ungrounded conductor shall be protected by an overcurrent device at the point where it receives its supply of current and at each point where the size of conductor is decreased, except that such protection may be omitted:

- (a) Where the overcurrent device in a larger conductor properly protects the smaller conductor;
- (b) Where the smaller conductor:
  - (i) Has an ampacity not less than the combined computed loads of the circuits supplied by the smaller conductor and not less than the ampere rating of the switchboard, panelboard, or control device supplied by the smaller conductor;
  - (ii) Is not over 3 metres long;
  - (iii) Does not extend beyond the switchboard, panelboard, or control device which it supplies; and
  - (iv) Is enclosed in non-ventilated raceways, armoured cable or metal-sheathed cable when not a part of the wiring in the switchboard, panelboard or other control device;
- (c) Where the smaller conductor:
  - (i) Has an ampacity not less than  $\frac{1}{3}$  that of the larger conductor from which it is supplied; and
  - (ii) Is suitably protected from mechanical damage, is not more than 7.5 metres long, and terminates in a single overcurrent device rated or set at a value not exceeding the ampacity of the conductor, but beyond the single overcurrent device the conductor may supply any number of overcurrent devices;
- (d) Where the smaller conductor is in a control circuit: and
  - (i) The rating or setting of the branch circuit overcurrent device is not more than 500 per cent of the ampacity of the control circuit conductor; or
  - (ii) The opening of the control circuit would create a hazard.
- (e) Where the smaller conductor supplies a transformer:
  - (i) The conductor supplying the primary of the transformer has an ampacity not less than  $\frac{1}{3}$  that of the larger conductor;

- (ii) The conductor supplied by the secondary of the transformer has an ampacity not less than the ampacity of the primary conductor multiplied by the ratio of the primary to the secondary voltage;
  - (iii) The total length of one primary plus one secondary conductor (the longest, if more than one winding), excluding any portion of the primary conductor that is protected at its own ampacity, does not exceed 7.5 metres;
  - (iv) The primary and secondary conductors are protected from mechanical damage; and
  - (v) The secondary conductor terminates in a single overcurrent device rated or set at a value not exceeding its ampacity.
- (f) Where the smaller conductor:
- (i) Is supplied by a circuit at not more than 750 volts;
  - (ii) Is supplied from an overhead or underground circuit and is run overhead or underground except where it enters a building;
  - (iii) Is installed in accordance with the requirements of Section 6; and
  - (iv) Terminates in service equipment in accordance with Section 6.
- (c) The ampacity of the main conductor feeding the devices located at points marked with an asterisk in Item 2 of Table 49, in the case where no main disconnecting device is provided.
  - (4) This protection shall be provided by:
    - (a) An overcurrent device which incorporates ground fault protection;
    - (b) A ground fault tripping system comprising a sensor or sensors, relay and auxiliary tripping mechanism; or
    - (c) Other approved means.
  - (5) The sensor or sensors referred to in Subrule (4) shall be:
    - (a) Sensors which vectorially totalize the currents in all conductors of the circuit, including the grounded circuit conductor, where one is provided, but excluding any current flowing in the ground fault return current path;
    - (b) Sensors which sense ground fault current flowing from the fault to the supply end of the system through the ground return path; or
    - (c) A combination of these two types of sensor.
  - (6) Sensors referred to in Subrule (5)(a) may be installed at any point between the supply transformer and the downstream side of the disconnecting means marked with an asterisk in Table 49 but, if located downstream from this disconnecting means, the sensors shall be placed as close as practicable to its load terminals.
  - (7) Sensors referred to in Subrule (5)(b) shall be located on each connection between neutral and ground, except that where the neutral is grounded both at the supply transformer and at the switching centre, the sensor at the transformer is not required provided the maximum pickup setting of the ground fault relay does not exceed 1000 amperes.
  - (8) In ground fault schemes where two or more protective devices in series are used for ground fault co-ordination, the upstream protective device settings may exceed those specified in Subrule (2) where necessary to obtain the desired co-ordination, provided that the final downstream ground fault protective device in each circuit required to be protected conforms to the requirements of Subrule (2).

#### 14-102 Ground Fault Protection

(1) Except as permitted by Subrule (8), ground fault protection shall be provided to de-energize all normally ungrounded conductors of a faulted circuit that are downstream from the point or points marked with an asterisk in Table 49 in the event of a ground fault in those conductors as follows:

- (a) In solidly grounded circuits rated more than 150 volts-to-ground, less than 750 volts phase-to-phase and 1000 amperes or more; and
  - (b) In solidly grounded circuits rated 150 volts or less to ground and 2000 amperes or more.
- (2) The maximum setting of the ground fault protection shall be 1200 amperes and the maximum time delay shall be one second for ground fault currents equal to or greater than 3000 amperes.

(3) The ampere rating of the circuits referred to in Subrule (1) shall be considered to be:

- (a) The rating of the largest fuse that can be installed in a fusible disconnecting device;
- (b) The highest trip setting for which the actual overcurrent device installed in a circuit breaker is rated or can be adjusted; or

**14-104 Rating of Overcurrent Devices, General.**  
The rating or setting of overcurrent devices shall not exceed the allowable ampacity of the conductors which they protect except:

- (a) Where a fuse or circuit breaker having a rating or setting of the same value as the ampacity of the conductor is not available, in which case the ratings or settings given in Table 13 may be used within the maximum value of 600 amperes;

- (b) In the case of equipment wire, flexible cord in sizes Nos. 16, 18, and 20 AWG copper, and tinsel cord, which will be considered as protected by 15 ampere overcurrent devices; or

- (c) As provided for by other rules of this Code.

**14-106 Location and Grouping.** Overcurrent devices shall be located in readily accessible places, except as provided for elsewhere in this Code, and shall be grouped where practicable.

#### 14-108 Enclosure of Overcurrent Devices

(1) Overcurrent devices shall be enclosed in cutout boxes or cabinets, unless they form a part of an approved assembly which affords equivalent protection, or unless mounted on switchboards, panelboards, or controllers located in rooms or enclosures free from easily ignitable material and dampness, and accessible only to authorized persons.

(2) Operating handles of circuit breakers shall be made accessible without opening any door or cover giving access to live parts.

#### 14-112 Overcurrent Devices in Parallel

(1) Overcurrent devices shall not be connected in parallel in circuits of 750 volts or less.

(2) Notwithstanding Subrule (1) semiconductor fuses having interrupting ratings of 100 000 amperes and more, 750 volts and less, and circuit breakers rated 750 volts and less are permitted to be connected in parallel provided they are factory assembled in parallel as a single unit.

### Fuses

#### 14-200 Time-Delay and Low-Melting Point Fuses

(1) Plug and cartridge fuses of the low-melting point types, including time-delay fuses which also have low-melting points shall be marked so as to be readily distinguishable.

(2) The marking referred to in Subrule (1) shall be the letter "P" for low-melting point types which do not have time-delay characteristics, and the letter "D" for time-delay fuses.

**14-202 Use of Plug Fuses.** Plug fuses and fuseholders shall not be used in circuits exceeding 125 volts between conductors except in circuits supplied from a system having a grounded neutral and no conductor operating at more than 150 volts-to-ground.

#### 14-204 Non-Interchangeable Fuses

(1) Where plug fuses are used in branch circuits they shall be of such a type and so installed that they are non-interchangeable with a fuse of larger rating.

(2) Where any alterations or additions are made to an existing fusible panelboard, all the plug fuses in the panelboard shall, where practical, comply with the requirements of Subrule (1).

**14-206 Fuseholders for Plug Fuses.** Fuseholders for plug fuses shall be of the so-called "covered" type where readily accessible to unauthorized persons.

#### 14-208 Rating of Fuses

(1) Plug fuses shall be rated at not more than 30 amperes.

(2) Standard cartridge fuses shall not be used in capacities larger than 600 amperes or in circuits at more than 600 volts.

(3) HRC Form I, HRC Form II and Class L high rupturing capacity fuses used in circuits rated at 750 volts or less are not limited as to current rating.

(4) Fuses for use in circuits of more than 750 volts are not limited in current or voltage ratings.

**14-210 Fuses and Fuseholders.** Only approved fuses and fuseholders of proper rating shall be used, and no bridging or short circuiting of either component is permitted.

**14-212 Use of HRC Form I and Form II High Rupturing Capacity Fuses.** HRC fuses, which have a rupturing capacity in excess of that required for standard fuses, may be used as follows:

- (a) HRC Form I fuses, in lieu of standard fuses;
- (b) HRC Form II fuses, for overcurrent protection only where circuit overload protection is provided by standard fuses, circuit breakers, or overload devices;
- (c) HRC Form II fuses, in lieu of standard fuses in those applications where this Code permits the installation of fuses greater than the ampere rating of the load, provided that the rating of the HRC Form II fuses does not exceed 85 per cent of the maximum rating permitted for standard fuses.

### Circuit Breakers

#### 14-300 Circuit Breakers, General

(1) Circuit breakers shall be of the trip-free type.

(2) Indication shall be provided at the circuit breaker and at the point of operation to show whether the circuit breaker is open or closed.

**14-302 Construction of Circuit Breakers.** Where circuit breakers are provided for the protection of apparatus or ungrounded conductors, or both, they shall open the circuit in all ungrounded conductors by the manual operation of a single handle and by the action of overcurrent, except:

- (a) Where single-pole circuit breakers are permitted by Rule 14-010(b); or
- (b) In branch circuits derived from a 3-wire grounded neutral system two single-pole manually operable circuit breakers may be used in lieu of a 2-pole breaker, provided that:

- (i) Their handles are so interlocked that all ungrounded conductors will be opened by the manual operation of either handle; and
- (ii) Each breaker has voltage ratings not less than that of the 3-wire grounded neutral system.

**14-304 Non-Tamperable Circuit Breakers.**

Branch-circuit breakers unless accessible only to authorized persons, shall be of such design that any alteration by the user of either tripping current or time will be difficult.

**14-306 Tripping Elements for Circuit Breakers.**

Circuit breakers shall be equipped with tripping elements as specified in Table 25.

**14-308 Battery Control Power for Circuit Breakers**

(1) When power for operating a circuit breaker is derived from a battery, the battery shall not supply any load other than the circuit breaker and its associated control circuits and the battery voltage shall be continuously monitored.

(2) If the battery voltage should drop to a value insufficient to operate the circuit breaker overcurrent element:

- (a) The circuit breaker must automatically trip; or
- (b) An alarm must operate continuously until the battery voltage is restored.

(3) A suitable warning notice shall be placed on or adjacent to the circuit breaker to the effect that battery control power must be available before the circuit breaker is closed.

**Control Devices****General**

**14-400 Rating of Control Devices.** Control devices shall have ratings suitable for the connected load of the circuits which they control and, with the exception of isolating switches, shall be capable of safely establishing and interrupting such loads.

**14-402 Disconnecting Means Required for Fused Circuits.** Circuits protected by fuses shall be equipped with disconnecting means integral with, or adjacent to, the fuseholders whereby all live parts for mounting fuses can be readily and safely made dead, except that such disconnecting means may be omitted in the case of:

- (a) Instrument and control circuits on switchboards where the voltage does not exceed 250 volts; and
- (b) Primary circuits of voltage transformers having a primary voltage of 750 volts or less, on switchboards; and

- (c) A circuit having only one ungrounded conductor where a plug fuse is used, as a plug fuse can be safely handled while alive in such a circuit.

**14-404 Control Devices Ahead of Overcurrent Devices.** Control devices used in combination with overcurrent devices or overload devices for the control of circuits or apparatus shall be connected so that the overcurrent or overload devices will be dead when the control device is in the open position, except where this is impracticable.

**14-406 Location of Control Devices**

(1) Control devices, with the exception of isolating switches, shall be readily accessible.

(2) Remotely controlled devices shall be considered to be readily accessible if the means of controlling them are readily accessible.

**14-408 Indication of Control Device Positions.**

Manually operable control devices shall indicate the "on" and "off" positions, unless the application of the devices is such as to make this requirement unnecessary.

**14-410 Enclosure of Control Devices.** Control devices, unless they are located or guarded so as to render them inaccessible to unauthorized persons and to prevent fire hazards, shall have all current-carrying parts in enclosures of metal or other fire-resisting material.

**14-412 Grouping of Control Devices.** Control devices controlling feeders and branch circuits shall be grouped where practicable.

**14-414 Connection to Different Circuits**

(1) Where electrical equipment is supplied by more than one circuit, in order to prevent accidental contact with bare live parts:

- (a) A single disconnecting means, which will effectively open all ungrounded conductors supplying the equipment, shall be provided integral with, or adjacent to, the equipment; or

- (b) (i) each circuit shall be provided with an isolating means integral with or adjacent to the equipment;

- (ii) The isolating means in Paragraph (i) shall consist of barriers, individual disconnecting means integral with or adjacent to the equipment and grouped where practicable, or multi-pole relays.

(2) Notwithstanding Subrule (1), disconnecting means integral with or adjacent to equipment need not be provided for control circuits originating beyond the equipment and not exceeding 150 volts-to-ground provided that all associated bare live parts are protected against inadvertent contact by means of barriers.

- (3) Where multiple disconnecting means as in Subrule (1)(b) are provided, suitable warning signs shall be

placed on or adjacent to each disconnecting means to the effect that all of the disconnecting means must be opened to ensure complete de-energization of the equipment.

(4) Where barriers are used as required in Subrule (2), a suitable warning sign shall be placed on or adjacent to the equipment, or on the barriers, indicating that there is more than one source of supply to the equipment.

(5) The barriers referred to in Subrules 14-414 (b) (ii), 14-414 (3) and 14-414 (4) shall consist of:

- (a) A minimum clearance of six inches between parts connected to different circuits;
- (b) Dead front construction;
- (c) Recessing; or
- (d) Other acceptable means.

(6) The effectiveness of barriers shall be judged as satisfactory when they prevent a probe ( $\frac{3}{4}$  inches in diameter, 3 inches long, and having a spherical end) from contacting adjacent live parts from any angle.

#### 14-416 Disconnecting Means

(1) A single disconnecting means shall be provided either integral with or adjacent to the distribution equipment:

- (a) within each unit of a multi-unit building, other than dwelling unit;
- (b) within each area common to more than one building, such as an underground parking area; or
- (c) within each building when fed from another building.

#### Switches

**14-500 Operation of Switches.** Knife switches and other control devices, unless located or guarded so as to render them inaccessible to unauthorized persons, shall be constructed so that they may be switched to the "off" position without exposing live parts.

#### 14-502 Mounting of Knife Switches

(1) Single-throw knife switches shall be mounted with their bases in a vertical plane.

(2) Single-throw knife switches shall be mounted so that gravity will not tend to close them.

(3) Double-throw knife switches may be mounted so that the throw will be either vertical or horizontal but, if the throw is vertical, a positive locking device or stop shall be provided so as to ensure the blades remaining in the open position when so set, unless it is not intended that the switch be left in the open position.

**14-504 Connection of Switches.** Manual single-throw switches, circuit breakers, or magnetic switches, shall be so connected that the blades or moving contacts will be dead when the device is in the open position, except that the following need not comply:

- (a) Branch-circuit breakers which have all live parts other than terminals sealed, and which are constructed so that the line and load connections may be interchanged;
- (b) Switchgear which is provided for sectionalizing purposes and has a suitable caution notice attached to the assembly;
- (c) Switches which are immersed in a liquid and have a suitable caution notice attached to the outside of the enclosure;
- (d) Switches which are designed so that all live parts are inaccessible when the device is in the open position;
- (e) Magnetic switches, when preceded by a circuit breaker or manual switch which is located in the same enclosure or immediately adjacent and is marked to indicate that it controls the circuit to the magnetic switch, unless this is obvious.

#### 14-506 Maximum Rating of Switches

(1) Knife switches rated at more than 600 amperes at 750 volts or less shall be used only as isolating switches.

(2) Notwithstanding Subrule (1), switches of special design and approved for such purpose may be used to interrupt currents greater than 600 amperes at 750 volts or less.

**14-508 Rating of General Use AC/DC Switches.** AC/DC switches shall be rated as follows:

- (a) For non-inductive loads other than tungsten-filament lamps, switches shall have an ampere rating not less than the ampere rating of the load;
- (b) For tungsten-filament lamp loads, and for combined tungsten filament and non-inductive loads, switches shall be "T" rated, except where:

(i) The switches are used in branch-circuit wiring systems in dwelling units, in private hospital or hotel rooms or in similar locations but not in public rooms or places of assembly;

(ii) The switch controls permanently connected fixtures or lighting outlets in one room only, or in one continuous hallway where the lighting fixtures may be located at different levels or in attics or basements not used for assembly purposes; and

(iii) The switch is rated at not less than 10 amperes, 125 volts; 5 amperes, 250 volts; or for the 4-way types, 5 amperes, 125 volts; 2 amperes, 250 volts;

(c) Canopy switches controlling a tungsten-filament lamp load shall be "T" rated or shall have an

ampere rating at least three times the ampere rating of the load;

- (d) For inductive loads, switches shall have an ampere rating of twice the ampere rating of the load except that a switch having an "F" rating at 10 amperes, 125 volts is permitted to be used without derating where the inductive load is ac and the power factor is between unity and 75 per cent.

#### 14-510 Use and Rating of Manually-Operated General-Use Alternating-Current Switches

(1) Manually-operated, general-use switches intended for alternating-current systems and constructed so that they can be installed readily in wiring systems for making and breaking tungsten-filament lighting and power circuits shall be rated as follows:

- (a) For tungsten-filament lamp loads at 120 volts maximum, switches shall have an ampere rating not less than the current rating of the load;
- (b) For non-inductive loads and for inductive loads at not less than 75 per cent power factor lag, switches shall have an ampere rating not less than the current rating of the load.

(2) The current rating of the switches shall be not less than 15 amperes in conjunction with a voltage rating of 120 or 277 volts.

(3) Switches shall be adapted for mounting in flush-device boxes, surface-type boxes, special boxes, or have complete self enclosures.

#### 14-512 Manually Operated General-Use 347 Volt AC Switches

(1) Manually operated general-use 347 volt ac switches shall be used only for the control of non-inductive loads other than tungsten-filament lamps, and for inductive loads where the power factor is not less than 75 per cent lagging.

(2) The current rating of the switches shall be not less than 15 amperes in conjunction with a voltage rating of 347 volts.

(3) The switches designed for mounting in boxes shall not be readily interchangeable with switches referred to in Rules 14-508 and 14-510.

**14-514 Manually Operated Switches in Circuits Exceeding 300 Volts-to-Ground.** Switches referred to in Rules 14-508 and 14-512, when controlling circuits exceeding 300 volts-to-ground shall not be ganged or grouped in the same enclosure unless the enclosure provides permanently installed barriers.

#### Protection and Control of Miscellaneous Apparatus

**14-600 Protection of Receptacles.** Receptacles shall not be connected to a branch circuit having over-current protection rated or set at more than the ampere

rating of the receptacle except as permitted by other Sections of this Code.

**14-602 Additional Control Devices Not Necessary.** Portable appliances need not be equipped with additional control devices where the appliances are:

- (a) Rated at not more than 1500 watts; and
- (b) Provided with approved cord connectors, attachment plugs or other approved means by which they can be disconnected readily from the circuits.

**14-604 Outlet Control From More Than One Point.** Where switches are used to control an outlet or outlets from more than one point, the switches shall be wired and connected so that the grounded conductor runs directly to the outlet or outlets controlled by the switches.

#### 14-606 Panelboard Overcurrent Protection

(1) Except for panelboards where more than 90 per cent of the overcurrent devices supply feeders or motor branch circuits, every panelboard shall be protected on the supply side by overcurrent devices having a rating not greater than that of the panelboard.

(2) The overcurrent protection required by Subrule (1) is permitted to be in the primary of a transformer supplying the panelboard provided the rating of the panelboard is not less than 125 percent of the rated secondary current of the transformer and the primary overcurrent device is rated or set at no more than 125 percent of the rated primary current of the transformer.

**14-608 Remote-Control Circuits.** Remote-control circuits of remotely controlled apparatus shall be arranged so that they may be conveniently disconnected from their source of supply at the controller, but as an alternative it may be arranged that the disconnecting of the apparatus from the supply circuit also disconnects the remote-control circuit from the supply circuit.

**14-610 Protection of Circuits Supplying Cycling Loads.** Where fuses protect circuits in which more than 50 per cent of the circuit rating is a cycling load, such as thermostatically-controlled electric space heaters, clothes dryers or water heaters, they shall be time-delay or low-melting point fuses of the type referred to in Rule 14-200 or HRC Form 1 fuses, except that in dwelling units HRC Form 1 fuses shall have the same low-melting point characteristics referred to in Rule 14-200.

**14-612 Transfer Equipment for Standby Power Systems.** Transfer equipment for standby power systems shall prevent the inadvertent interconnection of normal and standby sources of supply in any operation of the transfer equipment.

#### Solid State Devices

**14-700 Restriction of Use.** Solid state devices

shall not be used as isolating switches or as disconnecting means.

#### 14-702 Disconnecting Means Required

(1) Supplementary disconnecting means shall be provided where failure of or leakage through a solid state device could result in transfer of energy between two or more power sources.

(2) The disconnecting means referred to in Sub-rule (1) shall:

- (a) Be connected into the circuit in such a way that when opened they will prevent transfer of energy between the different power sources; and
- (b) Be provided as an integral part of the solid state device; or
- (c) Be installed as close as practicable and in sight of the solid state device.

**14-704 Warning Notices Required.** Suitable warning notices shall be placed:

- (a) On the supplementary disconnecting means required by Rule 14-702 to the effect that:
  - (i) This disconnecting means shall be opened in the event of a failure of any of the power sources or in the event of servicing of any component in the circuits of the other power sources; and
  - (ii) Both line and load terminals may be energized when the disconnecting means is open; and
- (b) On all other upstream disconnecting means to the effect that an alternate power source, or sources, exist in the circuit and that the supplementary disconnecting means must also be opened to prevent the possibility of feedback from the alternate source or sources.

### SECTION 16—CLASS 1 AND CLASS 2 CIRCUITS

#### General

#### 16-000 Scope

- (1) This Section covers:
  - (a) Class 1 and Class 2 remote-control circuits;
  - (b) Class 1 and Class 2 signal circuits;
  - (c) Class 1 extra-low-voltage power circuits; and
  - (d) Class 2 low-energy power circuits.
- (2) This Section does not apply to:
  - (a) Communication circuits; and

- (b) Circuits forming an integral part of a device.

**16-002 Classifications.** Circuits covered by this Section are that portion of the wiring system between the load side of the overcurrent device or the power-limited supply and all connected equipment, and shall be classified as follows:

- (a) Class 1—Circuits which are supplied from sources having limitations in accordance with Rule 16-100;
- (b) Class 2—Circuits which are supplied from sources having limitations in accordance with Rule 16-200.

**16-004 Class 1 Extra-Low-Voltage Power Circuits.** Circuits which are neither remote-control circuits nor signal circuits, but which operate at not more than 30 volts where the current is not limited in accordance with Rule 16-200 and which are supplied from a transformer or other device restricted in its rated output to 1000 volt-amperes and approved for the purpose, shall be classed as extra-low-voltage power circuits and shall be considered to be Class 1 circuits.

**16-006 Class 2 Low-Energy Power Circuits.** Circuits which are neither remote-control circuits nor signal circuits but in which the current is limited in accordance with Rule 16-200, shall be classed as low-energy power circuits and shall be considered to be Class 2 circuits.

**16-008 Hazardous Locations.** Where the circuits or apparatus within the scope of this Section are installed in hazardous locations, they shall also comply with the applicable rules of Section 18.

**16-010 Circuits to Safety Control Devices.** Where the failure to operate of a remote control circuit to a safety control device will introduce a direct fire or life hazard, the remote control circuit shall be deemed to be a Class 1 circuit.

#### 16-012 Circuits in Communication Cables

(1) Class 1 circuits shall not be run in the same cable with communication circuits.

(2) Class 2 remote-control and signal circuits or parts thereof which use conductors in a cable assembly with other conductors forming parts of communication circuits are, for the purpose of this Code, deemed to be communication circuits.

#### Class 1 Circuits

#### 16-100 Limitation of Class 1 Circuits

(1) Class 1 extra-low-voltage power circuits shall be supplied from a source having a rated output of not more than 30 volts and 1000 volt-amperes.

(2) Class 1 remote-control and signal circuits shall be supplied by a source not exceeding 600 volts.

**16-102 Methods of Installation for Class 1 Circuits.** The requirement and conductors of Class 1 circuits shall be installed in accordance with the requirements of other appropriate Sections of this Code, except as provided in Rules 16-104 to 16-120.

#### **16-104 Overcurrent Protection of Class 1 Circuit**

(1) Conductors of Class 1 circuits shall be protected against overcurrent in accordance with Section 14 of this Code, except:

- (a) Where other rules of this Code specifically permit or require other overcurrent protection;
- (b) Where the conductors are of No. 18 or No. 16 AWG copper and extend beyond the equipment enclosure, they shall be protected by overcurrent devices rated at a maximum of 5 amperes and 10 amperes respectively.

(2) Where overcurrent protection is installed at the secondary terminals of the transformer and the transformer is suitably enclosed, no overcurrent protection is required on the primary side other than the normal overcurrent protection of the branch circuit supplying the transformer.

#### **16-106 Location of Overcurrent Devices in Class 1 Circuits**

(1) In Class 1 circuits, the overcurrent devices shall be located at the point where the conductor to be protected receives its supply.

(2) The overcurrent device may be an integral part of the power supply.

**16-108 Class 1 Extra-Low-Voltage Power Circuit Sources Including Transformers.** To comply with the 1000 volt-ampere limitation, Class 1 extra-low-voltage power circuit sources including transformers shall not exceed a maximum power output of 2500 volt-amperes, and the product of the maximum current and maximum voltage shall not exceed 10,000 volt-amperes with the overcurrent protection by-passed.

#### **16-110 Conductor Material and Sizes**

(1) Copper conductors smaller than No. 14 AWG may be used in Class 1 circuits if:

- (a) Installed in a raceway;
- (b) Installed in a cable approved for the purpose; or
- (c) Within a flexible cord in accordance with Rule 4-010.

(2) Subject to the conditions specified in Subrule (1), conductors shall be not smaller than:

- (a) No. 16 AWG for individual conductors pulled in raceways;

(b) No. 18 AWG for individual conductors laid in raceways; and

(c) No. 18 AWG for an integral assembly of two or more conductors.

#### **16-112 Insulated Conductors for Class 1 Wiring**

(1) Where conductors larger than No. 16 AWG copper are used in a Class 1 circuit, they shall be of any type shown in Table 19.

(2) Where conductors of No. 18 or No. 16 AWG copper are used in a Class 1 circuit, they shall be equipment wire of the type suitable for such use as indicated in Table 11.

#### **16-114 Conductors of Different Circuits in the Same Enclosure, Cable, or Raceway**

(1) Different Class 1 circuits are permitted to occupy the same enclosure, cable or raceway without regard to whether the individual circuits are alternating current or direct current, provided all conductors are insulated for the maximum voltage of any conductor in the enclosure, cable or raceway.

(2) Power supply conductors and Class 1 circuit conductors are not permitted in the same enclosure, cable or raceway except when connected to the same equipment, and all conductors are insulated for the maximum voltage of any conductor in the enclosure, cable or raceway.

**16-116 Mechanical Protection of Remote-Control Circuits.** Where mechanical damage to a remote-control circuit would result in a hazardous condition as outlined in Rule 16-010 all conductors of such remote-control circuits shall be installed in conduit, electrical metallic tubing, or be otherwise suitably protected from mechanical injury or other injurious condition such as moisture, excessive heat or corrosive action.

**16-118 Class 1 Circuits Extending Aerially Beyond a Building.** Class 1 circuits which extend aerially beyond a building shall comply with Rules 12-300 to 12-318.

#### **Class 2 Circuits**

#### **16-200 Limitation of Class 2 Circuits**

(1) Class 2 circuits, depending upon the voltage, shall have the current limited as follows:

- (a) **0 to 20 volts.** Circuits in which the open-circuit voltage does not exceed 20 volts shall have overcurrent protection rated at not more than 5 amperes, exceed that overcurrent protection is not required where the current is supplied from:

- (i) Primary batteries which under short circuit will not supply a current exceeding 7.5 amperes after 1 minute;

- (ii) A Class 2 circuit transformer; or
  - (iii) A device having characteristics which will limit the current under normal operating conditions or under fault conditions to a value not exceeding 5 amperes;
  - (iv) A device having a Class 2 output.
- (b) **Over 20 volts but not exceeding 30 volts.** Circuits in which the open-circuit voltage exceeds 20 volts but does not exceed 30 volts shall have an overcurrent protection ampere rating not exceeding  $100/v$  amperes, where  $v$  is the open-circuit voltage, except that the overcurrent protection is not required where the current is supplied from:
- (i) Primary batteries which under short circuit will not supply a current exceeding 5 amperes after 1 minute;
  - (ii) A Class 2 circuit transformer; or
  - (iii) A device having characteristics which will limit the current under normal operating conditions or under fault conditions to an ampere value not exceeding  $100/v$  amperes, where  $v$  is the open-circuit voltage.
  - (iv) A device having a Class 2 output.
- (c) **Over 30 volts but not exceeding 60 volts.** Circuits in which the open-circuit voltage exceeds 30 volts but does not exceed 60 volts shall have an overcurrent protection ampere rating not exceeding  $100/v$  amperes, where  $v$  is the open-circuit voltage, except that the overcurrent protection is not required where the current is supplied from:
- (i) A Class 2 circuit transformer; or
  - (ii) A device having characteristics which will limit the current under normal operating conditions or under fault conditions to an ampere value not exceeding  $100/v$  amperes, where  $v$  is the open-circuit voltage;
- (d) **Over 60 volts but not exceeding 150 volts.** Circuits in which the open-circuit voltage exceeds 60 volts but does not exceed 150 volts shall have an overcurrent protection ampere rating not exceeding  $100/v$  amperes, where  $v$  is the open-circuit voltage, and in addition shall be equipped with current-limiting means other than overcurrent protection, which will limit the current, either under normal operating conditions or under fault conditions, to an ampere value not exceeding 100 volts, where volts is the open-circuit voltage.

shall be approved for the purpose and be restricted in their rated output to not exceeding 100 volt-amperes.

(3) A device having energy-limiting characteristics may consist of a series resistor of an acceptable rating, or other similar device.

(4) A Class 2 power supply shall not be connected in series or parallel with another Class 2 power source.

**16-202 Methods of Installation on Supply Side of Overcurrent Protection or Transformers or Other Devices for Class 2 Circuits.** In Class 2 circuits, the conductors and equipment on the supply side of overcurrent protection, transformers, or current-limiting devices shall be installed in accordance with the requirements of other appropriate Sections of this Code.

**16-204 Marking.** A Class 2 power supply unit shall have permanent markings which shall be readily visible after installation to indicate the class of supply and its electrical rating.

**16-206 Overcurrent Protection and Mounting for Class 2 Circuits**

(1) Where overcurrent protection is applied to Class 2 circuits in accordance with Rule 16-200 such protection and its mounting shall be approved for the purpose.

(2) **Overcurrent protection of different ratings shall not be of an interchangeable type.**

(3) **The overcurrent protection may be an integral part of a transformer or other power-supply device approved for the purpose.**

**16-208. Location of Overcurrent Devices.** Overcurrent devices shall be located at the point where the conductor to be protected receives its supply.

**16-210 Conductors for Class 2 Circuit Wiring**

(1) Conductors for use in Class 2 circuits shall be of the type for the application as indicated in Table 19.

(2) Type ELC conductors are limited in use to:

- (a) Class 2 circuits operating at 30 volts or less;
- (b) Dwelling units in buildings of combustible construction;
- (c) Dry locations; and
- (d) Where concealed or exposed, when not subject to mechanical injury.

(3) Type ELC Conductors are not permitted for the wiring of heating control circuits or fire safety circuits such as fire alarm or smoke alarm devices.

(4) Conductors shall be of copper and shall be not smaller than:

(2) Transformer devices supplying Class 2 circuits

- (a) No. 16 AWG for individual conductors pulled into raceways;
  - (b) No. 19 AWG for individual conductors laid in raceways;
  - (c) No. 19 AWG for an integral assembly of two or more conductors;
  - (d) No. 22 AWG for an integral assembly of four or more conductors;
  - (e) No. 24 AWG for an integral assembly of six or more conductors; and
  - (f) No. 26 AWG for an integral assembly of ten or more conductors.
- (5) Notwithstanding Subrule (4)(d), Type ELC wire is permitted in an integral assembly of two or more conductors for No. 22 AWG copper wire where not pulled into raceways.

(6) The maximum allowable current shall be as listed in Table 57 for sizes No. 16 AWG and smaller but, in no case shall exceed the current limitations of Rule 16-200.

#### **16-212 Separation of Class 2 Circuit Conductors from Other Circuits**

(1) Conductors of Class 2 circuits shall be separated at least 50 millimetres from insulated conductors of electric lighting, power or Class 1 circuits operating at 300 volts or less and shall be separated at least 600 millimetres from any insulated conductors of electric lighting, power or Class 1 circuits operating at more than 300 volts unless for both conditions effective separation is afforded by use of:

- (a) Metal raceways for the Class 2 circuits or for the electric lighting, power and Class 1 circuits, subject to the metal raceways being bonded to ground;
- (b) Metal sheathed or armoured cable for the electric lighting, power and Class 1 circuit conductors, subject to the sheath or armour being bonded to ground;
- (c) Non-metallic sheathed cable for the electric lighting, power and Class 1 circuits operating at 300 volts or less; or
- (d) nonmetallic conduit, electrical nonmetallic tubing, insulated tubing or equivalent, in addition to the insulation on the Class 2 circuit conductors or the electric lighting, power and Class 1 circuit conductors.

(2) Where the electric lighting or power conductors are bare, all Class 2 circuit conductors in the same room or space shall be enclosed in a metal raceway, that is bonded to ground, and no opening, such as an outlet box, may be located within 2 metres of the bare

conductors if up to and including 15 kilovolts or within 3 metres of bare conductors above 15 kilovolts.

(3) Unless the conductors of the Class 2 circuits are separated from the conductors of electric lighting, power and Class 1 circuits by an acceptable barrier, the conductors in Class 2 circuits shall not be placed in any raceway, compartment, outlet box, junction box or similar fitting with the conductors of electric lighting, power or Class 1 circuits.

(4) Subrule (3) shall not apply where the conductors of a power circuit are in the raceway, compartment, outlet box, junction box, or similar fitting for the sole purpose of supplying power to the Class 2 circuits, and all conductors are insulated for the maximum voltage of any conductor in the enclosure, cable or raceway, except that no Class 2 conductor installed in a raceway, compartment, outlet box, junction box, or similar fitting with such conductors of a power circuit shall show a green-coloured insulation, unless such Class 2 conductor is completely contained within a sheathed or jacketed cable assembly throughout the length that is present in such raceway or enclosure.

**16-214 Conductors of Different Class 2 Circuits in the Same Cable, Enclosure, or Raceway.** Conductors of two or more Class 2 circuits are permitted within the same cable, enclosure or raceway provided all conductors in the cable, enclosure or raceway are insulated for the maximum voltage of any conductor.

**16-216 Penetration of a Fire Separation.** Conductors of a Class 2 circuit extending through a fire separation shall be so installed as to limit fire spread in accordance with Rule 2-126.

**16-218 Conductors in Vertical Shafts and Hoistways.** Class 2 conductors and cables installed in a vertical shaft or hoistway shall meet the requirements of Rules 2-126 and 2-128.

**16-220 Class 2 Conductors in Ducts and Plenum Chambers and Equipment.** Class 2 conductors and equipment shall not be placed in ducts or plenum chambers except as permitted by Rules 12-010 and 2-128.

#### **16-222 Equipment Located on the Load Side of Overcurrent Protection, Transformers, or Current-Limiting Devices for Class 2 Circuits**

(1) Equipment located on the load side of overcurrent protection, transformers, or current-limiting devices for Class 2 circuits shall:

- (a) For Class 2 circuits operating at 30 volts or less, alternating current or direct current, be acceptable for the particular application; and
- (b) For Class 2 circuits operating at more than 30 volts, alternating current or direct current be suitable for the voltage range and application, be approved for the purpose and be arranged so

that no live parts are accessible to unauthorized persons.

(2) Notwithstanding Subrule (1), lighting fixtures, and thermostats incorporating heat anticipators, located on the load side of overcurrent protection, Class 2 transformers, or current-limiting devices shall be approved when connected to Class 2 circuits operating at 30 volts or less.

**16-224 Class 2 Circuits Extending Beyond a Building.** Where Class 2 circuits extend beyond a building and are run in such manner as to be subject to accidental contact with lighting or power conductors operating at a potential exceeding 300 volts between conductors, the conductors of the Class 2 circuit shall also meet the requirements of Section 60.

### 16-228 Underground Installations

(1) Underground installations of Class 2 circuits shall be installed in accordance with Rule 12-012.

(2) Direct buried Class 2 circuits shall maintain a minimum horizontal separation of 300 millimetres from other underground systems except when installed in accordance with Subrule (3).

(3) Direct buried Class 2 circuits may be placed at random separation in a common trench with power circuits which are for the sole purpose of supplying power to the Class 2 circuits provided that the Class 2 circuit is in a metal sheathed cable with the sheath bonded to ground, the power circuit operates at 750 volts or less, and all conductors are insulated for the maximum voltage of any conductor in the trench.

## SECTION 18—HAZARDOUS LOCATIONS

### Scope and Introduction

#### 18-000 Scope

(1) This Section applies to locations in which electrical equipment and wiring are subject to the conditions indicated by the following classifications.

(2) This Section is supplementary to, or amendatory of, the general requirements of this Code.

**18-002 Classification.** Hazardous locations shall be classified according to the nature of the hazard, as follows:

- (a) Class I locations are those in which flammable gases or vapours are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures;
- (b) Class II locations are those which are hazardous because of the presence of combustible or electrically conductive dusts; or
- (c) Class III locations are those which are hazardous because of the presence of easily ignitable fibres or flyings, but in which such fibres or flyings are not likely to be in suspension in air in quantities sufficient to produce ignitable mixtures.

**18-004 Division of Class I Locations.** Class I locations shall be further divided into two divisions as follows:

(a) Division 1, comprising Class I locations in which:

- (i) Hazardous concentrations of flammable gases or vapours exist continuously, intermittently, or periodically under normal operating conditions;
- (ii) Hazardous concentrations of flammable gases or vapours may exist frequently because of repair or maintenance operation or because of leakage; or
- (iii) Equipment is operated or processes carried on of such nature that breakdown or faulty operation thereof could result in the release of hazardous concentrations of flammable gases or vapours and simultaneous failure of electrical equipment;

(b) Division 2, comprising Class I locations in which:

- (i) Flammable volatile liquids, flammable gases or vapours are handled, processed, or used, but in which the liquids, gases, or vapours are normally confined within closed containers or closed systems from which they can escape only as a result of accidental rupture or breakdown of the containers or systems or the abnormal operation of the equipment by which the liquids or gases are handled, processed or used;
- (ii) Hazardous concentration of gases or vapours are normally prevented by positive mechanical ventilation, but which may become hazardous as the result of failure or abnormal operation of the ventilating equipment; or
- (iii) The location is adjacent to a Class I Division 1 location, from which a hazardous concentration of gases or vapours could be communicated, unless such communication is prevented by adequate positive-pressure ventilation from a source of clean air, and effective safeguards against ventilation failure are provided.

**18-006 Division of Class II Locations.** Class II locations shall be further divided into two divisions as follows:

(a) Division 1, comprising Class II locations in which:

- (i) Combustible dust is or may be in suspension in air continuously, intermittently, or periodically under normal operating conditions in quantities sufficient to produce explosive or ignitable mixtures;
- (ii) The normal or abnormal operation or the failure of equipment or apparatus might cause explosive or ignitable mixtures to be produced in, or in dangerous proximity to, electrical equipment or apparatus; or
- (iii) Dusts having the property of conducting electricity may be present;

(b) Division 2, comprising Class II locations in which combustible dusts are not normally in suspension in air or likely to be thrown into suspension by the normal or abnormal operation or the failure of equipment or apparatus in quantities sufficient to produce explosive or ignitable mixtures, but in which:

(i) Deposits or accumulations of dust may be sufficient to interfere with the safe dissipation of heat from electrical equipment or apparatus; or

(ii) Deposits or accumulations of dust on, in, or near electrical equipment may be ignited by arcs, sparks, or burning material from the electrical equipment.

**18-008 Division of Class III Locations.** Class III locations shall be further divided into two divisions as follows:

(a) Division 1, comprising Class III locations in which readily ignitable fibres or materials producing combustible flyings are handled, manufactured, or used; and

(b) Division 2, comprising Class III locations in which readily ignitable fibres other than those in process of manufacture are stored or handled.

**18-010 Special Terminology.** In this Section, the following definition applies:

“Cable gland” means a device or combination of devices intended to provide a means of entry of a cable or flexible cord into a hazardous location enclosure and which also provides strain relief and is permitted to provide sealing characteristics where required, either by an integral means or when combined with a separate sealing fitting.

### General

#### 18-050 Electrical Equipment

(1) Where electrical equipment is required by this Section to be approved for the class of location, it shall also be approved for the specific gas, vapour, or dust that will be present.

(2) Such approval may be indicated by one or more of the following atmospheric group designations which have been established for the purposes of testing and approval:

(a) Group A, comprising atmospheres containing Acetylene;

(b) Group B, comprising atmospheres containing butadiene, ethylene oxide, hydrogen (or gases or vapours equivalent in hazard to hydrogen, such as manufactured gas), or propylene oxide;

(c) Group C, comprising atmospheres containing acetaldehyde, cyclopropane, diethyl ether, ethylene, or unsymmetrical dimethyl hydrazine (UDMH), or other gases or vapours of equivalent hazard;

(d) Group D, comprising atmospheres containing acetone, acrylonitrile, alcohol, ammonia, ben-

zine, benzol, butane, ethylene dichloride, gasoline, hexane, isoprene, lacquer solvent vapours, naphtha, natural gas, propane, propylene, styrene, vinyl acetate, vinyl chloride, xylenes, or other gases or vapours of equivalent hazard;

(e) Group E, comprising atmospheres containing metal dust, including aluminum, magnesium, and their commercial alloys, and other metals of similarly hazardous characteristics;

(f) Group F, comprising atmospheres containing carbon black, coal, or coke dust; or

(g) Group G, comprising atmospheres containing flour, starch, or grain dust, and other dusts of similarly hazardous characteristics.

(3) Notwithstanding Rule 18-050 (2) (b), where the atmosphere contains:

(a) Butadiene, Group D equipment may be used if such equipment is isolated in accordance with Rule 18-106 (3) by sealing all conduit  $\frac{1}{2}$  inch size or larger; or

(b) Ethylene oxide or propylene oxide, Group C equipment may be used if such equipment is isolated in accordance with Rule 18-106 (3) by sealing all conduit  $\frac{1}{2}$  inch size or larger.

#### 18-052 Marking

(1) Electrical equipment approved for use in hazardous locations shall be so marked to indicate the class and for Classes I and II locations the group, or the specific gas, vapour, or dust, for which the equipment has been approved.

(2) Electrical equipment approved for use in Class I hazardous locations may be marked with:

(a) The maximum external temperature; or

(b) One of the following temperature codes to indicate the maximum external temperature:

Temperature Code	Maximum External Temperature
T1	450°C
T2	300°C
T2A	280°C
T2B	260°C
T2C	230°C
T2D	215°C
T3	200°C
T3A	180°C
T3B	165°C
T3C	160°C
T4	135°C
T4A	120°C
T5	100°C
T6	85°C

(3) If no maximum external temperature marking is shown on Class I equipment approved for the class and group, the equipment, if of the heat producing

type (which excludes junction boxes, conduit fittings, etc.), shall be considered as having the following maximum external temperature for the purpose of compliance with Rule 18-054.

Group A	—	280°C
Group B	—	280°C
Group C	—	160°C
Group D	—	215°C

(4) Equipment approved for Class 1, Division 2 only shall be so marked.

(5) Electrical equipment approved for operation at ambient temperatures exceeding 40°C shall, in addition to the marking specified in Rule 18-052(2), be marked with the maximum ambient temperature for which the equipment is approved, and the maximum external temperature of the equipment at that ambient temperature.

**18-054 Temperature.** In Class I hazardous locations equipment shall not be installed in an area where vapours or gases are present that have an ignition temperature less than the maximum external temperature of the equipment as referred to in Rule 18-052 (2) and (3).

#### **18-056 Non-Essential Electrical Equipment**

(1) No electrical equipment shall be used in a hazardous location, unless it is essential to the processes being carried on therein.

(2) Service equipment, panelboards, switchboards, and similar electrical equipment shall, where practicable, be located in rooms or sections of the building in which hazardous conditions do not exist.

**18-058 Rooms, Sections, or Areas.** Each room, section, or area, including motor- and generator-rooms and rooms for the enclosure of control equipment, shall be considered as a separate location for the purpose of determining the classification of the hazard.

#### **18-060 Equipment Rooms**

(1) Where walls, partitions, floors or ceilings are used to form hazard-free rooms or sections, they shall be:

- (a) Of substantial construction;
- (b) Built of or lined with noncombustible material; and
- (c) Such as to ensure that the rooms or sections will remain free from hazards.

(2) Where a non-hazardous location within a building communicates with a Class I, Division 2 location, a Class II location, or a Class III location, the locations shall be separated by close-fitting, self-closing, approved fire doors.

(3) For communication from a Class I, Division 1 location the provisions of Rule 18-004 (b) (iii) shall apply.

#### **18-062 Metal-Covered Cable**

(1) Where mineral-insulated cable is used in hazardous locations, the cable terminations shall be made by experienced workmen strictly in accordance with the cable manufacturer's instructions, which shall include an insulation resistance test before the cable is energized to assure that moisture has not entered the mineral insulation prior to the application of the pot seal, and that the conductors have not been short-circuited or grounded while preparing the seal.

(2) Where exposed overhead conductors supply mineral insulated cable in a hazardous location, surge arresters shall be installed to limit the surge voltage level to 5 kilovolts on the cable.

(3) Where single-conductor metal-covered cable is used in hazardous locations it shall be installed in such a manner as to prevent sparking between cable sheaths or between cable sheaths and metal bonded to ground, and:

- (a) Cables in the circuit shall be clipped or strapped together, in a manner which will ensure good electrical contact between metal coverings, at intervals of not more than 1.8 metres and the metal coverings shall be bonded to ground, or
- (b) Cables in the circuit shall have the metal coverings continuously covered with insulating material and the metal coverings shall be bonded to ground at one end only.

(4) Where mineral-insulated heating cable is used in hazardous locations it shall be specifically approved for the purpose and the hazardous location.

**18-064 Pressurized Equipment or Equipment Rooms.** Electrical equipment and associated wiring in class I locations may be located in enclosures or rooms constructed and arranged so that a positive air or inert gas pressure is maintained at all times that the equipment is energized and Rules 18-100 to 18-178 of this Section do not apply if the location and the construction and arrangement is lawful under Rule 2-030.

#### **18-066 Intrinsically Safe Electrical Equipment and Wiring**

(1) Electrical equipment and associated wiring approved as intrinsically safe may be installed in any hazardous location for which it is approved, and the provisions of Rules 18-100 to 18-380 of this Section need not apply.

(2) Electrical equipment and associated circuits approved as non-incendive shall be permitted in Class I, Division 2 locations and the provisions of Rules 18-150 to 18-154 need not apply.

(3) Raceways or cable for intrinsically safe and non-incendive wiring and equipment in Class I locations shall be properly sealed to prevent migration of gas or

vapour into enclosures or raceways required to be explosionproof, as well as to other locations.

(4) The conductors in an intrinsically safe and non-incendive circuit shall not be placed in any raceway, compartment, outlet, junction box, or similar fitting with the conductors of any other system unless the conductors of the two systems are separated by a suitable mechanical barrier.

**18-068 Cable trays.** Cable trays shall not be used to support cables in hazardous locations except where:

- (a) The type of cable is approved in rules of this Section for use in the particular hazardous location;
- (b) The type of cable is approved for use in cable trays in accordance with Rule 12-2204; and
- (c) There can be no hazardous accumulation of combustible process dust or fibre in or upon the cable, the cable tray, or the supports.

#### **18-070 Combustible Gas Detection Instruments.**

Where it is impractical to use another form of protection, electrical equipment suitable for non-hazardous locations shall be permitted to be installed in a Class I Division 2 hazardous location and electrical equipment suitable for Class I Division 2 hazardous locations is permitted to be installed in a Class I Division 1 hazardous location if the installation is lawful under Rule 2-030 and the location is continuously monitored by a combustible gas detection instrument that,

- (a) Will actuate ventilating equipment or other means designed to prevent the concentration of gas from reaching the lower explosive limit when the gas concentration reaches 20% of the lower explosive limit;
- (b) Will automatically de-energize the equipment being protected when the gas concentration reaches 40% of the lower explosive limit; and
- (c) Will automatically de-energize the equipment being protected upon failure of the gas detection instrument.

**18-072 Explosive Fluid Seals.** Electrical equipment containing an explosive fluid seal intended to prevent explosive fluids from reaching the electrical housing or conduit system shall not be used at pressures in excess of the marked maximum working pressure.

### **CLASS I LOCATION**

#### **Installation in Class I, Division 1 Locations**

#### **18-100 Transformers and Capacitors, Class I, Division 1**

(1) Transformers and electrical capacitors which contain a liquid that will burn shall be installed in electrical equipment vaults in accordance with Rules 26-350 to 26-356, and:

- (a) There shall be no door or other connecting opening between the vault and the hazardous area;
- (b) The vault shall be so ventilated as to ensure the continuous removal of hazardous gases or vapours;
- (c) Vent-openings or vent-ducts shall lead to a safe location outside the building containing the vault;
- (d) Vent-openings and vent-ducts shall be of sufficient area to relieve pressure caused by explosions within the vault; and
- (e) Every portion of a vent-duct within the building shall be constructed of reinforced concrete.

(2) Transformers and electrical capacitors which do not contain a liquid that will burn shall be:

- (a) Installed in electrical equipment vaults conforming to Subrule (1); or
- (b) Of explosionproof type approved for Class I locations.

#### **18-102 Meters, Instruments, and Relays, Class I, Division 1**

(1) Where practicable, meters, instruments, and relays, including kilowatt-hour meters, instrument transformers and resistors, rectifiers and thermionic tubes shall be located outside the hazardous location.

(2) Where it is not practicable to install meters, instruments, and relays outside Class I, Division 1 locations, they shall be approved for Class I locations.

#### **18-104 Wiring Methods, Class I, Division 1**

(1) The wiring method shall be threaded rigid metal conduit or cables approved for hazardous locations with associated cable glands approved for the particular hazardous location.

(2) All boxes, fittings, and joints shall be threaded for connection to conduit or cable glands, and shall be explosionproof with boxes and fittings approved for Class I locations.

(3) Threaded joints shall have at least five full threads fully engaged and running threads shall not be used.

(4) Cables shall be installed and supported in a manner to avoid tensile stress at the cable glands.

(5) Where it is necessary to use flexible connections at motor terminals and similar places, flexible fittings of the explosionproof type approved for the location shall be used.

#### **18-106 Sealing, Class I, Division 1**

(1) Seals shall be provided in conduit or cable systems to prevent the passage of gases, vapours, or

flames from one portion of the electrical installation to another through the system.

(2) Passage of gases, vapours, or flames through mineral-insulated cable is inherently prevented by construction of the cable, but sealing compound shall be used in cable glands to exclude moisture and other fluids from the cable insulation, and shall be of a type approved for the conditions of use.

(3) Seals shall be located:

- (a) In each run of conduit entering an enclosure for switches, circuit breakers, fuses, relays, resistors, or other apparatus which may produce arcs, sparks, or high temperatures and shall be as close as practicable to and in no case more than 450 millimetres from the enclosure, with no junction box or similar enclosure in the conduit run between the sealing fitting and the apparatus enclosure;
  - (b) In each run of conduit of 2-inch size or larger entering an enclosure or fitting housing terminals, splices, or taps, and within 450 millimetres of such enclosure or fitting;
  - (c) At each point where a cable enters an enclosure which is required to be explosion-proof;
  - (d) In each run of conduit leaving a Class I, Division 1 location with no box, coupling, or fitting in the conduit run between the seal and the point at which the conduit leaves the location, except that a rigid unbroken conduit which passes completely through a Class I, Division 1 area with no fittings less than 300 millimeters beyond each boundary, providing the termination points of the unbroken conduit are in non-hazardous areas, need not be sealed.
- (4) Where seals are required they shall conform to the following:
- (a) The seal shall be made:
    - (i) In a field installed sealing fitting which shall be accessible and approved for the location; or
    - (ii) In a sealing fitting provided as part of an approved enclosure and where the seal is factory-made the enclosure shall be so marked to indicate that such a seal is provided, except that motors and generators approved for the location need not be so marked;
  - (b) Sealing compound shall be approved for the purpose, shall not be affected by the surrounding atmosphere or liquids, and shall not have a melting point of less than 93 °C;
  - (c) In the completed seal, the minimum thickness of the sealing compound shall be not less than the trade size of the conduit, and in no case less than  $\frac{5}{8}$  inch;

(d) Splices and taps shall not be made in fittings intended only for sealing with compound, nor shall other fittings in which splices or taps are made be filled with compound;

(e) Where there is a probability that liquid or other condensed vapour may be trapped within enclosures for control equipment or at any point in the raceway system, approved means shall be provided to prevent accumulation or to permit periodic draining of such liquid or condensed vapour; and

(f) Where there is a probability that liquid or condensed vapour may accumulate within motors or generators, joints and conduit systems shall be arranged to minimize entrance of liquid, but if means to prevent accumulation or permit periodic draining are judged necessary, such means shall be provided at the time of manufacture, and shall be deemed an integral part of the machine.

(5) Runs of cable each having a continuous sheath, either metal or non-metallic, is permitted to pass through a Class I, Division 1 location without seals.

(6) Cables which do not have a continuous sheath, either metal or non-metallic, shall be sealed at the boundary of the Division 1 location.

**18-108 Switches, Motor Controllers, Circuit-Breakers and Fuses, Class I, Division 1.** Switches, motor controllers, circuit-breakers and fuses, including push buttons, relays, and similar devices shall be provided with enclosures, and the enclosure in each case together with the enclosed apparatus shall be approved as a complete assembly for use in Class I locations.

**18-110 Control Transformers and Resistors, Class I, Division 1.** Transformers, impedance coils and resistors used as or in conjunction with control equipment for motors, generators and appliances and the switching mechanism, if any, associated with them, shall be approved for Class I locations.

**18-112 Motors and Generators, Class I, Division 1.** Motors, generators, and other rotating electrical machines shall be approved for Class I locations.

**18-114 Ignition systems for Gas Turbines, Class I, Division 1.** Ignition systems for gas turbines shall be approved for Class I, Division 1 locations.

**18-116 Lighting Fixtures, Class I, Division 1**

(1) Fixtures for fixed and portable lighting shall be approved as complete assemblies for Class I locations and shall be clearly marked to indicate the maximum wattage of lamps for which they are approved.

(2) Fixtures intended for portable use shall be specifically approved as complete assemblies for that use.

(3) Each fixture shall be protected against physical damage by a suitable guard or by location.

(4) Pendent fixtures shall be:

- (a) Suspended by and supplied through threaded rigid conduit stems, and threaded joints shall be provided with set screws or other effective means to prevent loosening;

- (b) For stems longer than 300 millimetres provided with permanent and effective bracing against lateral displacement at a level not more than 300 millimetres above the lower end of the stem or provided with flexibility in the form of a fitting or flexible connector approved for the purpose and for the location not more than 300 millimetres from the point of attachment to the supporting box or fitting.

(5) Boxes, box assemblies or fittings used for the support of lighting fixtures shall be approved for the purpose and for Class I locations.

#### **18-118 Utilization Equipment, Fixed and Portable, Class I, Division 1.**

(1) Utilization equipment, fixed and portable, including electrically-heated and motor-driven equipment, shall be approved for Class I locations.

(2) Ground fault protection shall be provided to de-energize all normally ungrounded conductors of an electric heat tracing cable set with a ground fault trip setting adjusted to allow normal operation of the heater.

**18-120 Flexible Cords, Class I, Division 1.** Flexible cords may be used only for connection between a portable lamp or other portable utilization equipment and the fixed portion of its supply circuit and where used shall:

- (a) Be of a type approved for extra hard usage;
- (b) Contain, in addition to the conductors of the circuit, a bonding conductor; and
- (c) Be provided with glands approved for the class and group where flexible cord enters a box, fitting or enclosure of the explosionproof type.

**18-122 Receptacles and Attachment Plugs, Class I, Division 1.** Receptacles and attachment plugs shall be of the type providing for connection to the bonding conductor of the flexible cord, and shall be approved for class I locations.

**18-124 Conductor Insulation, Class I, Division 1.** Where condensed vapours or liquids may collect on or come in contact with the insulation on conductors, such insulation shall be of a type approved for use under such conditions or the insulation shall be protected by a sheath of lead or by other approved means.

**18-126 Signal, Alarm, Remote-Control, and Communication Systems, Class I, Division 1.** Signal, alarm, remote-control, and communication systems shall conform to the following:

- (a) All apparatus and equipment shall be provided for Class I locations; and

- (b) All wiring shall comply with Rules 18-104 and 18-106.

**18-128 Live Parts, Class I, Division 1.** No live parts of electrical equipment or of an electrical installation shall be exposed.

#### **18-130 Bonding, Class I, Division 1**

(1) Exposed non-current-carrying metal parts of electrical equipment, including the frames or metal exteriors of motors, fixed or portable lamps or other utilization equipment, lighting fixtures, cabinets, cases, and conduit shall be bonded to ground in accordance with Section 10.

(2) The bonding path continuity and adequacy in a hazardous location and in a non-hazardous location from which the hazardous location is supplied, shall be ensured by the use of threaded connections, bonding jumpers with proper fittings, or other approved means, meeting the requirements of Rule 10-612.

#### **Installation in Class I, Division 2 Locations**

**18-150 Process Instrumentation, Communication, and Remote Control Equipment Class I, Division 2.** Process instrumentation, communication and remote control equipment shall be approved for the location except that transformers, solenoids and other windings that do not incorporate sliding or make and break contacts or resistance devices, need not be approved for the hazardous locations.

#### **18-152 Wiring Methods, Class I, Division 2**

(1) The wiring method shall be:

- (a) Threaded metal conduit;
- (b) Cables approved for hazardous locations with associated cable glands approved for the particular hazardous location or;
- (c) Type TC cable installed in cable tray in accordance with Rule 12-2204, enclosed in rigid conduit or other acceptable wiring method wherever it leaves the cable tray.

(2) Cables shall be installed and supported in a manner to avoid tensile stress at the cable glands.

(3) Where it is necessary to use flexible connections at motor terminals and similar places, flexible metal conduit may be used.

(4) Boxes, fittings and joints need not be explosion-proof except as required by Rule 18-106 (4).

#### **18-154 Sealing, Class I, Division 2**

(1) Seals shall be provided in conduit systems to prevent the passage of gases, vapours, or flames from one portion of the electrical installation to another through the conduit.

(2) Passage of gases, vapours, or flames through mineral-insulated cable other than the light-weight type is inherently prevented by construction of the cable, but sealing compound shall be used in cable termination fittings to exclude moisture and other fluids from the cable insulation, and shall be of a type approved for the conditions of use.

(3) Seals shall be located:

- (a) In each run of conduit entering an enclosure which is required to be explosionproof, as close as practicable to, and, in no case, more than 450 millimetres from the enclosure, with no junction box or similar enclosure in the conduit run between the sealing fitting and the apparatus enclosure;
- (b) In each run of conduit leaving Class I, Division 2 location with no box, coupling, or fitting in the conduit run between the seal and the point at which the conduit leaves the location, except that rigid unbroken conduit which passes completely through a Class I, Division 2 area with no fittings 300 millimetres beyond each boundary, providing the termination points of the unbroken conduit are in non-hazardous areas, need not be sealed; and
- (c) At each point where a cable enters an enclosure which is required to be explosionproof.

(4) Where a run of conduit enters an enclosure which is required to be explosionproof, every part of the conduit from the seal to the explosionproof enclosure shall comply with Rule 18-104.

(5) Runs of cable each having a continuous sheath, either metal or non-metallic are permitted to pass through a Class I, Division 2 location without seals.

(6) Cables which do not have a continuous sheath, either metal or non-metallic, shall be sealed at the boundary of the Division 2 location.

(7) Where seals are required, Rule 18-106 (4) shall apply.

**18-156 Switches, Controllers, and Circuit Breakers, Class I, Division 2.** Switches, controllers, and circuit breakers shall be provided with enclosures approved for the location.

**18-158 Isolating Switches, Class I, Division 2.** Isolating switches shall conform to the following:

- (a) They shall be so interlocked with their associated current-interrupting devices that they cannot be opened under load; and
- (b) They may have enclosures of the general-purpose type, provided they are unfused.

**18-160 Fuses for Motors, Appliances, and Portable Lamps, Class I, Division 2.** Where fuses are used in Class I, Division 2 locations for the protection of motors, appliances, and portable lamps:

- (a) A standard plug or cartridge fuse may be used if placed within an explosionproof enclosure approved for the class of the location; or
- (b) A fuse of a type in which the operating element is immersed in oil or other approved liquid, or is enclosed within a chamber hermetically sealed against the entrance of gases and vapours, may be used if approved for the purpose and placed within a general-purpose enclosure.

#### **18-162 Sets of Fuses or Circuit Breakers for Fixed Lighting, Class I, Division 2.**

(1) In this Rule, "sets of fuses" means a group containing as many fuses as are required to perform a single protective function in a circuit, but excluding fuses conforming to Rule 18-160.

(2) Where:

- (a) Not more than 10 sets of approved enclosed fuses; or
- (b) Not more than 10 circuit breakers which are not used as switches for the normal operation of the lamps,

are installed in Class I, Division 2 locations for the protection of a branch circuit or a feeder circuit which supplies only lamps in a fixed position, the enclosures for the fuses or circuit breakers may be of the general-purpose type.

#### **18-164 Motors and Generators, Class I, Division 2**

(1) Motors, generators, and other rotating electrical machines, in which are incorporated arcing or spark producing components or integral resistance devices shall be approved for Class I locations unless the arcing or spark producing components or integral resistance devices are provided with enclosures approved for Class I locations.

(2) Motors, generators, and other rotating electrical machines which do not incorporate arcing or spark producing components or integral resistance devices may be of the open or non-explosionproof type.

**18-166 Ignition Systems for Stationary Internal Combustion Engines, Class I, Division 2.** Ignition systems for stationary internal combustion engines shall be approved for Class I, Division 2 locations.

#### **18-168 Lighting Fixtures, Class I, Division 2**

(1) Lighting fixtures shall conform to the following:

- (a) Portable lamps shall conform to Rule 18-116 (1) and (2); and
- (b) Fixed lighting:
  - (i) Shall be protected from physical damage by acceptable guards or by location;
  - (ii) Shall be approved as complete assemblies for Class I, Division 2 locations and shall be

clearly marked to indicate the maximum wattage, voltage, and specific type designations of the lamps for which they are approved.

(2) Pendent fixtures shall be:

(a) Suspended by threaded rigid conduit stems or by other approved means;

(b) For stems longer than 300 millimetres, provided with permanent and effective bracing against lateral displacement at a level not more than 300 millimetres above the lower end of the stem, or flexibility in the form of a fitting or flexible connector approved for the purpose shall be provided not more than 300 millimetres from the point of attachment to the supporting box or fitting.

(3) Boxes, box assemblies, or fittings used for the support of lighting fixtures shall be approved for the purpose.

(4) Switches which are part of an assembled fixture or of an individual lampholder shall conform to Rule 18-156.

(5) Starting and control equipment for electric-discharge lighting equipment shall be provided with enclosures approved for the location.

#### **18-170 Utilization Equipment, Fixed and Portable, Class I, Division 2**

(1) Electrically heated utilization equipment, whether fixed or portable, shall be approved for Class I locations.

(2) Motors of motor-driven utilization equipment shall conform to Rule 18-164.

(3) Switches, circuit breakers, and fuses forming part of or used in connection with utilization equipment, shall conform to Rules 18-156 to 18-160.

**18-172 Flexible Cords, Class I Division 2.** Flexible cords shall be permitted to be used only for connection between permanently mounted lighting fixtures, portable lamps, or other portable utilization equipment and the fixed portion of supply circuits, and where used shall:

- (a) Be of a type approved for extra hard usage;
- (b) Contains, in addition to the circuit conductors, a bonding conductor; and
- (c) Be provided with glands approved for the class and group where flexible cord enters a box, fitting or enclosure of the explosionproof type.

**18-174 Receptacles and Attachment Plugs, Class I, Division 2.** Receptacles and attachment plugs shall conform to Rule 18-120.

**18-176 Live Parts, Class I, Division 2.** No live parts of electrical equipment or of an electrical installation shall be exposed.

**18-178 Bonding, Class I, Division 2.** Electrical equipment shall be bonded to ground in the manner required by Rule 18-130.

### **CLASS II LOCATIONS**

#### **Installations in Class II, Division 1 Locations**

#### **18-200 Transformers and Capacitors, Class II, Division 1**

(1) Transformers and electrical capacitors which contain a liquid that will burn shall be installed in electrical equipment vaults in accordance with Rules 26-350 to 26-356; and

(a) Doors or other openings communicating with the hazardous area shall have self-closing fire doors on both sides of the wall, and the doors shall be carefully fitted and provided with suitable seals (such as weather stripping) to minimize the entrance of dust into the vault;

(b) Vent openings and ducts shall communicate only with the air outside the building; and

(c) Suitable pressure-relief openings communicating only with the air outside the building shall be provided.

(2) Transformers and electrical capacitors which do not contain a liquid that will burn shall be:

(a) Installed in electrical equipment vaults conforming to Subrule (1); or

(b) Approved as a complete assembly including terminal connections for Class II locations.

(3) No transformer or capacitor shall be installed in a location where dust from magnesium, aluminum, aluminum bronze powders, or other metals of similarly hazardous characteristics may be present.

#### **18-202 Wiring Methods, Class II, Division 1**

(1) The wiring method shall be threaded rigid metal conduit or cables approved for hazardous locations with associated cable glands approved for the particular hazardous location.

(2) Boxes, fittings and joints shall be threaded for connection to conduit or cable glands, and boxes and fittings shall be approved for Class II locations.

(3) Cables shall be installed and supported in a manner to avoid tensile stress at the cable glands.

(4) Where flexible connections are necessary they shall be provided by:

(a) Flexible connection fittings approved for the location;

- (b) Liquid-tight flexible metal conduit with fittings approved for the location; or
- (c) Extra-hard usage flexible cord provided with cable glands approved for the location.

(5) Where flexible connections are subject to oil or other corrosive conditions, the insulation of the conductors shall be of a type approved for the condition or shall be protected by means of a suitable sheath.

**18-204 Sealing, Class II, Division 1.** Where a raceway provides communication between an enclosure which is required to be dust-tight and one which is not, the entrance of dust into the dust-tight enclosure through the raceway shall be prevented by:

- (a) A permanent and effective seal;
- (b) A horizontal section not less than 3 metres long in the raceway; or
- (c) A vertical section of raceway not less than 1.5 metres long and extending downward from the dust-tight enclosure.

**18-206 Switches, Controllers, Circuit Breakers, and Fuses, Class II, Division 1.** Switches, motor controllers, circuit breakers, and fuses, including push buttons, relays, and similar devices shall be provided with a dust-tight enclosure approved for Class II locations.

**18-208 Control Transformers and Resistors, Class II, Division 1.** Transformers, impedance coils, and resistors used as or in conjunction with control equipment for motors, generators or electric appliances and the overcurrent devices or switching mechanisms, if any, associated with them shall be provided with a dust-tight enclosure approved for Class II locations.

**18-210 Motors and Generators, Class II, Division 1.** Motors, generators, and other rotating electrical machines shall be approved for Class II locations.

#### **18-212 Ventilating Pipes, Class II, Division 1**

(1) Every vent pipe for a motor, generator, or other rotating electrical machine or for enclosures for electrical apparatus or equipment shall:

- (a) Be of metal not less than 0.0209 inch (No. 24 MSG) thick or of an equally substantial non-combustible material;
- (b) Lead directly to a source of clean air outside a building;
- (c) Be screened at the outer end to prevent the entrance of animals or birds; and
- (d) Be protected against mechanical damage and corrosion.

(2) Every vent pipe and its connection to a motor or to a dust-tight enclosure for other equipment or apparatus shall be dust-tight throughout its entire length.

(3) The seams and joints of every metal vent pipe shall be:

- (a) Riveted and soldered;
  - (b) Bolted and soldered;
  - (c) Welded; or
  - (d) Rendered dust-tight by some other equally effective means.
- (4) No exhaust pipe shall discharge inside a building.

**18-214 Utilization Equipment, Fixed and Portable, Class II, Division 1.** Utilization equipment, fixed and portable, including electrically heated and motor-driven equipment shall be approved for Class II locations.

#### **18-216 Lighting Fixtures, Class II, Division 1**

(1) Fixtures for fixed and portable lighting shall be approved as complete assemblies for Class II locations and shall be clearly marked to indicate the maximum wattage of lamps for which they are approved.

(2) Fixtures intended for portable use shall be specifically approved as complete assemblies for that use.

(3) Each fixture shall be protected against physical damage by a suitable guard or by location.

(4) Pendent fixtures shall be:

- (a) Suspended by threaded rigid conduit stems or chains with approved fittings or by other approved means which shall not include a flexible cord as the supporting medium, and threaded joints shall be provided with set screws or other effective means to prevent loosening;
- (b) For rigid stems longer than 300 millimetres, provided with permanent and effective bracing against lateral displacement at a level not more than 300 millimetres above the lower end of the stem, or provided with flexibility in the form of a fitting or flexible connector approved for the purpose and for the location not more than 300 millimetres from the point of attachment to the supporting box or fitting; and

(c) Where wiring between an outlet box or fitting and the fixture is not enclosed in conduit, provided with a flexible cord approved for extra hard usage and suitable seals where the cord enters the fixture and the outlet box or fitting.

(5) Boxes, box assemblies or fittings used for the support of lighting fixtures shall be approved for the purpose and Class II locations.

**18-218 Flexible Cords, Class II, Division 1.** Flexible cords used shall:

- (a) Be of a type approved for extra hard usage;
- (b) Contain a bonding conductor in addition to the conductors of the circuit; and
- (c) Be provided with glands approved for the class and group to prevent the entrance of dust at the point where the cord enters a box or fitting

which is required by this Section to be dust-tight.

**18-220 Receptacles and Attachment Plugs, Class II, Division 1.** Receptacles and attachment plugs shall be approved for Class II locations.

**18-222 Signal, Alarm, Remote-Control, and Communication Systems, Meters, Instruments, and Relays, Class II, Division 1.** Signal, alarm, remote-control, and communication systems, and meters, instruments and relays shall conform to the following:

- (a) All apparatus and equipment shall be provided with enclosures approved for Class II locations, except that:
  - (i) Devices which carry or interrupt only a voice current shall not be required to be provided with such enclosures; and
  - (ii) Current-breaking contacts which are immersed in oil or enclosed in a chamber sealed against the entrance of dust are permitted to be provided with a general purpose enclosure if the prevailing dust is electrically non-conductive;
- (b) All wiring shall comply with Rules 18-202 and 18-204.

**18-224 Live Parts, Class II, Division 1.** No live parts of electrical equipment or of an electrical installation shall be exposed.

**18-226 Bonding, Class II, Division 1.** Electrical equipment shall be bonded to ground in the manner prescribed by Rule 18-130.

#### Installation in Class II, Division 2 Locations

#### 18-250 Transformers and Capacitors, Class II, Division 2

(1) Transformers and electrical capacitors which contain a liquid that will burn shall be installed in electrical equipment vaults in accordance with Rules 26-350 to 26-356.

(2) Transformers and electrical capacitors which contain a liquid that will not burn shall be:

- (a) Installed in electrical equipment vaults in accordance with Rules 26-350 to 26-356; or
- (b) Approved for Class II locations.
- (3) Dry core transformers installed in Class II, Division 2 locations shall:
  - (a) Be installed in electrical equipment vaults in accordance with Rules 26-350 to 26-356; or
  - (b) Have their windings and terminal connections enclosed in tight housings without ventilating or other openings and operate at not more than 750 volts.

#### 18-252 Wiring Methods, Class II, Division 2

(1) The wiring method shall be:

- (a) Threaded metal conduit; or
- (b) Cables approved for hazardous locations with associated cable glands approved for the particular hazardous location or;
- (c) Type TC cable installed in cable tray in accordance with Rule 12-2204, enclosed in rigid conduit or other acceptable wiring method wherever it leaves the cable tray.

(2) Boxes and fittings in which taps, joints or terminal connections are made shall be either a CSA Enclosure 4 or 5 or:

- (a) Be provided with telescoping or close-fitting covers, or other effective means to prevent the escape of sparks or burning material; and
- (b) Have no openings, such as holes for attachment screws, through which, after installation, sparks or burning material might escape, or through which exterior accumulations of dust or adjacent combustible material might be ignited.

(3) Cables shall be installed and supported in a manner to avoid tensile stress at the cable glands.

(4) Where it is necessary to use flexible connections the provisions of Rule 18-202 (4) and (5) shall apply.

**18-254 Sealing, Class II, Division 2.** Sealing of raceways shall conform to Rule 18-204.

#### 18-256 Switches, Controllers, Circuit Breakers, and Fuses, Class II, Division 2

(1) Except as provided by Subrule (2), enclosures for switches, motor controllers, circuit breakers, and fuses, including push buttons, relays and similar devices shall be either a CSA Enclosure 4 or 5 or:

- (a) Be equipped with telescoping or close-fitting covers, or with other effective means to prevent the escape of sparks or burning material; and
- (b) Have no openings, such as holes for attachment screws, through which, after installation, sparks or burning material might escape, or through which exterior accumulations of dust or adjacent combustible material might be ignited.

(2) In locations where dust from magnesium, aluminum, aluminum bronze powders, or other metals of similarly hazardous characteristics may be present, switches, motor controllers, circuit breakers and fuses shall have dust-tight enclosures approved for such locations.

#### 18-258 Control Transformers and Resistors, Class II, Division 2

(1) Switching mechanisms, including overcurrent devices, used in conjunction with control trans-

formers, impedance coils, and resistors shall be provided with enclosures conforming to Rule 18-256.

(2) Where not located in the same enclosure with switching mechanisms, control transformers and impedance coils shall be provided with tight housings without ventilating openings.

(3) Resistors and resistance devices shall have dust-tight enclosures approved for Class II locations, except that where the maximum normal operating temperature of the resistor will not exceed 120°C nonadjustable resistors and resistors which are part of an automatically timed starting sequence may have enclosures conforming to Subrule (2).

### **18-260 Motors and Generators, Class II, Division 2**

(1) Except as provided in Subrule (2), motors, generators, and other rotating electrical machinery shall be:

- (a) Approved for Class II, or Class II, Division 2 locations; or
- (b) Ordinary totally enclosed pipe-ventilated or totally enclosed fan-cooled subject to the following:
  - (i) Be equipped with integral overheating protection in accordance with Rule 28-314; and
  - (ii) If drain holes or other openings are provided they shall be closed with threaded plugs.

(2) Where only moderate quantities of non-conducting, non-abrasive dust are likely to accumulate in a location and the equipment in the location is readily accessible for routine maintenance, there may be installed in the location:

- (a) Standard open-type machines having Class A insulation without sliding contacts, centrifugal or other types of switching mechanism, including motor overcurrent devices or integral resistance devices; and
- (b) Standard open-type machines having Class A insulation which have the contacts, switching mechanisms, or resistance devices enclosed in accordance with Rule 18-256.

### **18-262 Ventilation Pipes, Class II, Division 2**

(1) Vent pipes for motors, generators, or other rotating electrical machinery, or for enclosures for electrical apparatus or equipment, shall conform to Rule 18-212 (1).

(2) Vent pipes and their connections shall be sufficiently tight to prevent the entrance of appreciable quantities of dust into the ventilated equipment or enclosure, and to prevent the escape of sparks, flame or burning material which might ignite accumulations of dust or combustible material in the vicinity.

(3) Where metal vent pipes are used, lock seams and riveted or welded joints may be used and, where some flexibility is necessary, as at connections to motors, tight-fitting slip joints may be used.

### **18-264 Utilization Equipment, Fixed and Portable, Class II, Division 2**

(1) Electrically heated utilization equipment, whether fixed or portable, shall be approved for Class II locations.

(2) Motors of motor-driven utilization equipment shall conform to Rule 18-260.

(3) The enclosure for switches, circuit breakers, and fuses shall conform to Rule 18-256.

(4) Transformers, impedance coils, and resistors forming part of or used in connection with utilization equipment shall conform to Rule 18-258 (2), (3).

(5) Where portable utilization equipment may be used in Class II, Division 1 locations and in Class II, Division 2 locations, it shall conform to Rule 18-214.

### **18-266 Lighting Fixtures, Class II, Division 2**

(1) Lighting fixtures shall conform to the following:

- (a) Portable lamps shall be approved as complete assemblies for Class II locations and shall be clearly marked to indicate the maximum wattage of lamps for which they are approved; and
- (b) Fixed lighting, shall:
  - (i) Be protected from physical damage by acceptable guards or by location;
  - (ii) Provide enclosures for lamps and lamp-holders which shall be designed to minimize the deposit of dust on lamps and to prevent the escape of sparks, burning material or hot metal;
  - (iii) Be clearly marked to indicate the maximum wattage of lamps for which they may be used without exceeding a maximum exposed surface temperature of 165°C under normal conditions of use.

(2) Pendent fixtures shall be:

- (a) Suspended by threaded rigid conduit stems or chains with approved fittings, or by other approved means, which shall not include flexible cord as the supporting medium;
- (b) For rigid stems longer than 300 millimetres provided with permanent and effective bracing against lateral displacement at a level not more than 300 millimetres above the lower end of the stem, or provided with flexibility in the form of a fitting or flexible connector approved for the purpose not more than 300 millimetres from the point of attachment to the supporting box or fitting; and

- (c) Where wiring between an outlet box or fitting and the fixture is not enclosed in conduit, provided with a flexible cord approved for extra hard usage.

(3) Boxes, box assemblies or fittings used for the support of lighting fixtures shall be approved for that purpose.

(4) Starting and control equipment for mercury vapour and fluorescent lamps shall conform to Rule 18-258.

**18-268 Flexible Cords, Class II, Division 2.** Flexible cords shall conform to Rule 18-218.

**18-270 Receptacles and Attachment Plugs, Class II, Division 2.** Receptacles and attachment plugs shall be:

- (a) Of a polarized type which affords automatic connection to the bonding conductor of the flexible supply cord; and
- (b) Designed so that the connection to the supply circuit cannot be made or broken while live parts are exposed.

**18-272 Signal, Alarm, Remote-Control, and Communication Systems, Meters, Instruments, and Relays, Class II, Division 2.** Signal, alarm, remote-control, and communications systems, and meters, instruments and relays shall conform to the following:

- (a) Contacts which interrupt other than voice currents shall be enclosed in conformity with Rule 18-256;
- (b) The windings and terminal connections of transformers and choke coils which may carry other than voice currents shall be provided with tight enclosures without ventilating openings; and
- (c) Resistors, resistance devices, thermionic tubes, and rectifiers which may carry other than voice currents shall be provided with dust-tight enclosures approved for Class II locations, except that where the maximum normal operating temperature of thermionic tubes, non-adjustable resistors or rectifiers will not exceed 120°C such devices may have tight enclosures without ventilating openings.

**18-274 Live Parts, Class II, Division 2.** No live parts of electrical equipment or of an electrical installation shall be exposed.

**18-276 Bonding, Class II, Division 2.** All electrical equipment shall be bonded to ground in the manner required by Rule 18-130.

#### Class III Locations

#### Installation in Class III, Division 1 Locations

**18-300 Transformers and Capacitors, Class III, Division 1.** Transformers and electrical capacitors shall conform to Rule 18-250.

#### 18-302 Wiring Methods, Class III, Division 1

(1) The wiring method shall be threaded rigid metal conduit or cables approved for hazardous locations with associated cable glands approved for the particular hazardous location.

(2) Boxes and fittings in which taps, joints, or terminal connections are made shall be either a CSA Enclosure 5 or:

- (a) Be provided with telescoping or close fitting covers, or other effective means to prevent the escape of sparks or burning material; and
- (b) Have no openings, such as holes for attachment screws, through which, after installation, sparks or burning material might escape, or through which adjacent combustible material might be ignited.

(3) Cables shall be installed and supported in a manner to avoid tensile stress at the cable glands.

(4) where it is necessary to use flexible connections the provisions of Rule 18-202 (4) and (5) shall apply.

**18-304 Switches, Controllers, Circuit Breakers and Fuses, Class III, Division 1.** Switches, motor controllers, circuit breakers, and fuses, including push buttons, relays and similar devices, shall be either a CSA Enclosure 5 or provided with tight enclosures designed to minimize entrance of fibres and flyings, and which shall:

- (a) Be equipped with telescoping or close fitting covers, or with other effective means to prevent escape of sparks or burning material; and
- (b) Have no openings, such as holes for attachment screws, through which, after installation, sparks or burning material might escape or through which exterior accumulations of fibres or flyings or adjacent combustible material might be ignited.

**18-306 Control Transformers and Resistors, Class III, Division 1.** Transformers, impedance coils, and resistors used as or in conjunction with control equipment for motors, generators, and appliances, shall conform to Rule 18-258, with the exception that, when these devices are in the same enclosure with switching devices of such control equipment, and are used only for starting or short-time duty, the enclosure shall conform to the requirements of Rule 18-304.

#### 18-308 Motors and Generators, Class III, Division 1

(1) Except as provided in Subrule (2), motors, generators, and other rotating electrical machinery shall be:

- (a) Totally enclosed non-ventilated;
- (b) Totally enclosed pipe-ventilated; or
- (c) Totally enclosed fan-cooled.

(2) Where, only moderate accumulations of lint and flyings are likely to collect on, in, or in the vicinity of a

rotating electrical machine and the machine is readily accessible for routine cleaning and maintenance, there may be installed in the location:

- (a) Standard open-type machines without sliding contacts, centrifugal, or other types of switching mechanism, including motor overload devices;
  - (b) Standard open-type machines which have contacts, switching mechanisms, or resistance devices enclosed within tight housings without ventilating or other openings; or
  - (c) Self-cleaning textile motors of the squirrel-cage type.
- (3) Motors, generators, or other rotating electrical machinery of the partially enclosed or splash-proof type shall not be installed in Class III locations.

#### **18-310 Ventilating Pipes, Class III, Division 1**

(1) Vent pipes for motors, generators, or other rotating electrical machinery or for enclosures for electrical apparatus or equipment shall conform to Rule 18-212 (1).

(2) Vent pipes and their connections shall be sufficiently tight to prevent the entrance of appreciable quantities of fibres or flyings into the ventilated equipment or enclosure, and to prevent the escape of sparks, flame, or burning material which might ignite accumulations of fibres or flyings or combustible material in the vicinity.

(3) Where metal vent pipes are used, lock seams and riveted or welded joints may be used and, where some flexibility is necessary, tight-fitting slip joints may be used.

#### **18-312 Utilization Equipment, Fixed and Portable, Class III, Division 1**

(1) Electrically heated utilization equipment, whether fixed or portable, shall be approved for Class III locations.

(2) Motors of a motor-driven utilization equipment shall conform to Rule 18-358.

(3) The enclosures for switches, motor controllers, circuit breakers, and fuses shall conform to Rule 18-304.

#### **18-314 Lighting Fixtures, Class III, Division 1**

(1) Lighting fixtures shall conform to the following:

(a) Portable lamps shall:

- (i) Be equipped with handles;
- (ii) Be protected with substantial guards;
- (iii) Have lampholders of the unswitched type with no exposed metal parts and without provision for receiving attachment plugs; and
- (iv) In all other aspects comply with Rule 18-314 (1) (b).

(b) Fixed lighting shall:

- (i) Provide enclosures for lamps and lamp-holders which shall be designed to minimize entrance of fibres and flyings and to prevent the escape of sparks, burning material, or hot metal;
- (ii) Be clearly marked to indicate the maximum wattage lamp which may be used without exceeding a maximum exposed surface temperature of 165°C. under normal conditions of use.

(2) Lighting fixtures which may be exposed to physical damage shall be protected by a suitable guard.

(3) Pendent fixtures shall comply with Rule 18-266 (2).

(4) Boxes, box assemblies or fittings used for the support of lighting fixtures shall be approved for that purpose.

(5) Starting and control equipment for mercury vapour and fluorescent lamps shall comply with Rule 18-306.

#### **18-316 Flexible Cords, Class III, Division 1.** Flexible cords shall comply with Rule 18-218.

#### **18-318 Receptacles and Attachment Plugs, Class III, Division 1.** Receptacles and attachment plugs shall comply with Rule 18-270.

#### **18-320 Signal, Alarm, Remote-Control, and Communication Systems, Class III, Division 1.** Signal, alarm, remote-control, and communication systems shall comply with Rule 18-272.

#### **18-322 Electric Cranes and Hoists, and Similar Equipment, Class III, Division 1.** Where installed for operation over combustible fibres or accumulations of flyings, travelling cranes and hoists for material handling, travelling cleaners for textile machinery, and similar equipment shall conform to the following:

- (a) Power supply to contact conductors shall be isolated from all other systems and shall be ungrounded, and shall be equipped with an acceptable recording ground detector which will give an alarm and will automatically de-energize the contact conductors in case of a fault to ground, or with an acceptable ground fault indicator which will give a visual and audible alarm, and maintain the alarm as long as power is supplied to the system and the ground fault remains;
- (b) Contact conductors shall be so located or guarded as to be inaccessible to other than authorized persons, and shall be protected against accidental contact with foreign objects.
- (c) Current collectors shall conform to the following:
  - (i) They shall be arranged or guarded to confine normal sparking and to prevent escape of sparks or hot particles;
  - (ii) To reduce sparking, two or more separate surfaces of contact shall be provided for each contact conductor; and

- (iii) Reliable means shall be provided to keep contact conductors and current collectors free of accumulations of lint or flyings.

- (d) Control equipment shall comply with Rules 18-304 and 18-306.

**18-324 Electric Trucks, Class III, Division 1.** Electric trucks shall be of an acceptable type.

**18-326 Storage-Battery Charging Equipment, Class III, Division 1.** Storage-battery charging equipment shall be located in separate rooms built or lined with substantial noncombustible materials so constructed as to adequately exclude flyings or lint, and shall be well ventilated.

**18-328 Live Parts, Class III, Division 1.** No live parts of electrical equipment or of an electrical installation shall be exposed, except as provided in Rule 18-322.

**18-330 Bonding, Class III, Division 1.** Electrical equipment shall be bonded to ground as prescribed by Rule 18-130.

#### Installation in Class III, Division 2 Locations

**18-350 Transformers and Capacitors, Class III, Division 2.** Transformers and capacitors shall conform to Rule 18-250.

**18-352 Wiring Methods, Class III, Division 2.** The wiring method in Class III, Division 2 locations shall conform to Rule 18-302 except that in sections, compartments, or areas used solely for storage and containing no machinery, open wiring on insulators in accordance with Rules 12-202 to 12-224 may be used, provided that, where conductors are installed elsewhere than in roof spaces and remote from physical damage, they shall be protected as required by Rules 12-212 and 12-214.

**18-354 Switches, Controllers, Circuit Breakers, and Fuses, Class III, Division 2.** Switches, motor controllers, circuit breakers, and fuses shall conform to Rule 18-304.

**18-356 Control Transformers and Resistors, Class III, Division 2.** Transformers, impedance coils, and resistors used as or in conjunction with control equipment for motors, generators and appliances shall conform to Rule 18-306.

**18-358 Motors and Generators, Class III, Division 2.**

(1) Motors, generators, and other rotating electrical machinery shall be:

- (a) Totally enclosed non-ventilated;
- (b) Totally enclosed pipe-ventilated; or
- (c) Totally enclosed fan-cooled.

(2) Motors, generators, or other rotating electrical machinery of the partially enclosed or splash-proof type shall not be installed in Class III locations.

**18-360 Ventilating Pipes, Class III, Division 2.** Ventilating pipes shall conform to Rule 18-212 (1).

**18-362 Utilization Equipment, Fixed and Portable, Class III, Division 2.** Fixed or portable utilization equipment shall conform to Rule 18-312.

**18-364 Lighting Fixtures, Class III, Division 2.** Lighting fixtures shall conform to Rule 18-314.

**18-366 Flexible Cords, Class III, Division 2.** Flexible cords shall conform to Rule 18-218.

**18-368 Receptacles and Attachment Plugs, Class III, Division 2.** Receptacles and attachment plugs shall conform to Rule 18-270.

**18-370 Signal, Alarm, Remote-Control, and Communication Systems, Class III, Division 2.** Signal, alarm, remote-control, and communication systems shall conform to Rule 18-272.

**18-372 Electric Cranes and Hoists and Similar Equipment, Class III, Division 2.** Electric cranes and hoists and similar equipment shall be installed as prescribed by Rule 18-322.

**18-374 Electric Trucks, Class III, Division 2.** Electric trucks shall conform to Rule 18-324.

**18-376 Storage-Battery Charging Equipment, Class III, Division 2.** Storage-battery charging equipment shall be located in rooms conforming to Rule 18-326.

**18-378 Live Parts, Class III, Division 2.** No live parts of electrical equipment or of an electrical installation shall be exposed, except as provided in Rule 18-322.

**18-380 Bonding, Class III, Division 2.** Equipment shall be bonded to ground in conformity with Rule 18-130.

### SECTION 20—FLAMMABLE LIQUID DISPENSING AND SERVICE STATIONS, GARAGES, BULK STORAGE PLANTS, FINISHING PROCESSES, AND AIRCRAFT HANGARS

**20-000 Scope.** This Section is supplementary to, or amendatory of, the general requirements of this Code and applies to the following installations:

- (a) Gasoline dispensing and service stations—Rules 20-002 to 20-014;
- (b) Commercial garages, repair and storage—Rules 20-100 to 20-114;
- (c) Residential storage garages—Rules 20-200 to 20-206;
- (d) Bulk storage plants—Rules 20-300 to 20-312;
- (e) Finishing processes—Rules 20-400 to 20-412; and
- (f) Aircraft hangars—Rules 20-500 to 20-522.

**Gasoline Dispensing and Service Stations****20-002 General**

(1) Rules 20-002 to 20-014 inclusive apply to electrical apparatus and wiring installed in gasoline dispensing and service stations, and other locations where gasoline or other similar volatile flammable liquids are dispensed or transferred to the fuel tanks of self-propelled vehicles.

(2) Other areas used as lubritoriums, service rooms and repair rooms, and offices, salesrooms, compressor rooms and similar locations shall conform to Rules 20-100 to 20-114 with respect to electrical wiring and equipment.

**20-004 Hazardous Areas**

(1) Except as provided for in Subrule (3), the space within a dispenser enclosure up to 1.2 metres vertically above its base including the space below the dispenser which may contain electrical wiring and equipment shall be considered to be a Class I, Division 1 location.

(2) The space within a nozzle boot of a dispenser shall be considered to be a Class I, Division 1 location.

(3) The space within a dispenser enclosure above the Class I, Division 1 location as specified in Subrule (1) or spaces within a dispenser enclosure isolated from the Division 1 location by a solid vapour-tight partition or by a solid nozzle boot but not completely surrounded by a Division 1 location shall be considered to be a Class I, Division 2 location.

(4) The space within 450 millimetres horizontally from the Division 1 location within the dispenser enclosure as specified in Subrule (1) shall be considered to be a Class I, Division 1 location.

(5) The space outside the dispenser within 450 millimetres horizontally from the opening of a solid nozzle boot located above the vapour-tight partition shall be considered to be a Class I, Division 2 location except that the classified area need not be extended beyond the plane in which the boot is located.

(6) In an outside location, any area beyond the Class I, Division 1 area (and in buildings not suitably cut off) within 6 metres horizontally from the exterior enclosure of any dispenser, shall be considered a Class I, Division 2 location, which will extend to a level 450 millimetres above driveway or ground level.

(7) In an outside location, any area beyond the Class I, Division 1 location (and in buildings not suitably cut off) within 3 metres horizontally from any tank fill-pipe shall be considered a Class I, Division 2 location which shall extend upward to a level 450 millimetres above driveway or ground level.

(8) Electrical wiring and equipment, any portion of which is below the surface of areas defined as Class I, Division 1 or Division 2 in Subrules (1), (4), (6) or (7) shall be considered to be within a Class I, Division 1 location which shall extend at least to the point of emergence above grade.

(9) Areas within the vicinity of tank vent-pipes shall be classified as follows:

- (a) The spherical volume within a 900 millimetres radius from point of discharge of any tank vent-pipe shall be considered a Class I, Division 1 location and the volume between the 900 millimetres to 1.5 metres radius from point of discharge of a vent shall be considered a Class I, Division 2 location;
- (b) For any vent that does not discharge upward, the cylindrical volume below both the Division 1 and Division 2 locations extending to the ground shall be considered a Class I, Division 2 location; and
- (c) The hazardous area shall not be considered to extend beyond an unpierced wall.

(10) Areas within lubrication rooms shall be classified as follows:

- (a) The area within any pit or space below grade or floor level in a lubrication room shall be considered a Class I, Division 1 location, unless the pit or space below grade is beyond the hazardous areas specified in Subrules (6), (7) and (9) in which case the pit or space below grade shall be considered Class I, Division 2 location;
- (b) The area within the entire lubrication room up to 50 millimetres above the floor or grade, whichever is the higher, and the area within 900 millimetres measured in any direction from the dispensing point of a hand-operated unit dispensing volatile flammable liquids shall be considered a Class I, Division 2 location.

**20-006 Wiring and Equipment Within Hazardous Areas**

(1) Electrical wiring and equipment within the hazardous areas defined in Rule 20-004 shall conform to Section 18 requirements.

(2) Where dispensers are supplied by rigid metal conduit, a flexible fitting complying with Rule 18-104(5) shall be used between the conduit and the junction box of the dispenser, in addition to any sealing fittings and unions that may be required by Section 18.

(3) The flexible metal fitting required by Subrule (2) shall be installed in such a manner as to allow for relative movement of the conduit and the dispenser.

**20-008 Wiring and Equipment Above Hazardous Areas.** Wiring and equipment above hazardous areas shall conform to Rules 20-106 and 20-110.

**20-010 Circuit Disconnects.** Each circuit leading to or through a dispensing pump shall be provided with a switching means which will disconnect all ungrounded conductors of the circuit from the source of supply simultaneously.

**20-012 Sealing**

(1) An approved seal shall be provided in each conduit run entering or leaving a dispenser or any cavities or enclosures in direct communication therewith.

(2) Additional seals shall be provided in conformance with Rules 18-106 and 18-156, and the requirements of Rules 18-106(3)(d) and 18-154(3)(b) shall include horizontal and vertical boundaries.

**20-014 Bonding.** All non-current-carrying metal parts of dispensing pumps, metallic raceways and other electrical equipment shall be bonded to ground in accordance with Section 10.

**Commercial Garages, Repair and Storage**

**20-100 Scope.** Rules 20-100 to 20-114 apply to locations used for service and repair operations in connection with self-propelled vehicles in which volatile flammable liquids or flammable gases are used for fuel or power, and locations in which more than three such vehicles are, or may be, stored at one time.

**20-102 Hazardous Areas**

(1) For each floor at or above grade, the entire area up to a level 50 millimetres above the floor shall be considered to be a Class I, Division 2 location.

(2) For each floor below grade, the entire area up to a level 50 millimetres above the bottom of outside doors or other openings which are at, or above, grade level shall be considered to be a Class I, Division 2 location except that where adequate mechanical ventilation is provided, the hazardous location shall extend up to a level of only 50 millimetres above each such floor.

(3) Any pit or depression below floor level shall be considered to be a Class I, Division 2 location which shall extend up to the floor level.

(4) Adjacent areas in which hazardous vapours are not likely to be released such as stockrooms, switchboard rooms, and other similar locations having floors elevated at least 50 millimetres above the adjacent garage floor or separated therefrom by tight curbs or partitions at least 50 millimetres high shall not be classed as hazardous.

**20-104 Wiring and Equipment in Hazardous Areas.** Within hazardous areas as defined in Rule 20-102, wiring and equipment shall conform to the applicable requirements of Section 18.

**20-106 Wiring Above Hazardous Areas**

(1) All fixed wiring above hazardous areas shall be in accordance with Section 12 and suitable for the type of building and occupancy.

(2) For pendants, flexible cord suitable for the purpose and approved for hard usage shall be used.

(3) For connection of portable lamps, portable

motors, or other portable utilization equipment, flexible cord of the hard usage type shall be used.

**20-108 Sealing**

(1) Approved seals shall be installed as required by Section 18, and the requirements of Rule 18-154 (3)(b) shall include horizontal and vertical boundaries.

(2) Raceways embedded in a masonry floor or buried beneath a floor shall be considered to be within the hazardous area above the floor if any connections or extensions lead into or through such area.

**20-110 Equipment Above Hazardous Areas**

(1) Fixed equipment which is less than 3.6 metres above the floor level and that may produce arcs, sparks, or particles of hot metal such as cutouts, switches, charging panels, generators, motors or other equipment (excluding receptacles, lamps and lampholders) having make-and-break or sliding contacts, shall be of the totally enclosed type or so constructed as to prevent escape of sparks or hot metal particles.

(2) Lamps and lampholders for fixed lighting that are located over lanes through which vehicles are commonly driven or which may otherwise be exposed to physical damage, shall be located not less than 3.6 metres above floor level unless of totally enclosed type or so constructed as to prevent escape of sparks or hot metal particles.

(3) Portable lamps shall comply with the following:

(a) They shall be of the totally enclosed gasketed type, equipped with handle, lampholder, hook and substantial guard attached to the lampholder or handle, and all exterior surfaces which may come in contact with battery terminals, wiring terminals or other objects shall be of non-conducting material or shall be effectively protected with an insulating jacket;

(b) The lampholders shall be of the unswitched type; and

(c) They shall not be provided with receptacles for attachment plugs.

**20-112 Battery Charging Equipment.** Battery chargers and their control equipment, and batteries being charged shall not be located within the hazardous areas classified in Rule 20-102.

**20-114 Electric Vehicle Charging**

(1) Flexible cords used for charging shall be approved for the type of service, including extra hard usage.

(2) Connectors shall have a rating not less than the ampacity of the cord and in no case less than 50 amperes.

(3) Connectors shall be so designed and installed that they will break apart readily at any position of the charging cable, and live parts shall be guarded from accidental contact.

(4) No connector shall be located within the hazardous area defined in Rule 20-102.

(5) Where plugs are provided for direct connection to vehicles, the point of connection shall not be within a hazardous area as defined in Rule 20-102.

(6) Where a cord is suspended from overhead, it shall be so arranged that the lowest point of sag is at least 150 millimetres above the floor.

(7) Where the vehicle is equipped with a plug which will readily pull apart, and where an automatic arrangement is provided to pull both cord and plug beyond the range of mechanical damage, no additional connector is required in the cable or outlet.

### Residential Storage Garages

**20-200 Scope.** Rules 20-200 to 20-206 apply to a building or part of a building in which not more than three vehicles of the types described in Rule 20-100 are, or may be, stored, but which will not normally be used for service or repair operations on stored vehicles.

**20-202 Non-Hazardous Location.** Where the lowest floor is at or above adjacent grade or driveway level, and where there is at least one outside door at or below floor level, the garage area shall not be classed as a hazardous location.

**20-204 Hazardous Location.** Where the lowest floor is below adjacent grade or driveway level, the following shall apply:

- (a) The entire area of the garage or of any enclosed space which includes the garage shall be classified as a Class I, Division 2 location up to a level 50 millimetres above the garage floor; and
- (b) Adjacent areas in which hazardous vapours or gases are not likely to be released shall not be classed as hazardous provided the floors of the adjacent area are elevated at least 50 millimetres above the garage floor or are separated therefrom by tight curbs or partitions at least 50 millimetres high.

### 20-206 Wiring

(1) Wiring above the hazardous locations shall conform to Section 12.

(2) Wiring in the hazardous locations shall conform to Section 18.

### Bulk Storage Plants

**20-300 Scope.** Rules 20-300 to 20-312 apply to locations where gasoline or other similar volatile flammable liquids are stored in tanks having an aggregate capacity of one carload or more, and from which such products are distributed (usually by tank truck).

### 20-302 Hazardous Areas

(1) Areas containing pumps, bleeders, withdrawal fittings, meters and similar devices which are located

in pipe lines handling flammable liquids under pressure shall be classified and comply with the following:

- (a) Ventilated indoor areas shall be considered as Class I, Division 2 locations within a 1.5 metre distance extending in all directions from the exterior surface of such devices as well as 7.5 metres horizontally from any surface of these devices and extending upwards to 900 millimetres above floor or grade level, provided that:
  - (i) Design of the ventilation systems takes into account the relatively high specific gravity of the vapours;
  - (ii) Where openings are used in outside walls they are of adequate size and located at floor level unobstructed except by louvres or coarse screens; and
  - (iii) Where natural ventilation is inadequate, mechanical ventilation is provided;
- (b) Indoor areas not ventilated in accordance with Subrule (1)(a) shall be considered Class I, Division 1 locations within a 1.5 metre distance extending in all directions from the exterior surface of such devices as well as 7.5 metres horizontally from any surface of the device and extending upward 900 millimetres above floor or grade level;
- (c) Outdoor areas shall be considered as Class I, Division 2 locations within a 900 millimetre distance extending in all directions from the exterior surfaces of such devices as well as up to 450 millimetres above grade level within 3 metres horizontally from any surface of the devices.

(2) Areas where flammable liquids are transferred shall be classified as follows:

- (a) In outdoor areas or where positive and reliable mechanical ventilation is provided in indoor areas in which flammable liquids are transferred to individual containers, such areas shall be considered as a Class I, Division 1 location within 900 millimetres of the vent or fill opening extending in all directions and a Class I, Division 2 location within the area extending between a 900 millimetre and 1.5 metre radius from the vent or fill opening extending in all directions and including the area within a horizontal radius of 3 millimetres from the vent or fill opening and extending to a height of 450 millimetres above floor or grade levels; or
- (b) The area extending between a 900 millimetre and 1.5 metre radius from the dome when flammable liquids are transferred to individual containers, such areas shall be considered to be a Class I, Division 1 location.

(3) Areas in outside locations where loading and

unloading of tank vehicles and tank cars takes place shall be classified as follows:

- (a) The area extending 900 millimetres in all directions from the dome when loading through an open dome or from the vent when loading through a closed dome with atmospheric venting shall be considered a Class I, Division 1 location;
  - (b) The area extending between a 900 millimetre and 1.5 metre radius from the dome when loading through an open dome or from the vent when loading through a closed dome with atmospheric venting shall be considered a Class I, Division 2 location;
  - (c) The area extending within 900 millimetres in all directions from a fixed connection used in bottom loading or unloading, loading through a closed dome with atmospheric venting or loading through a closed dome with a vapour recovery system shall be considered a Class I, Division 2 location except that in the case of bottom loading or unloading this classification shall also be applied to the area within a 3 metre radius from point of connection and extending 450 millimetres above grade.
- (4) Areas within the vicinity of above ground tanks shall be classified as follows:
- (a) The area above the roof and within the shell of a floating roof type tank shall be considered a Class I, Division 1 location;
  - (b) For all types of above ground tanks:
    - (i) The area within 3 metres from the shell, ends and roof of other than a floating roof shall be considered a Class I, Division 2 location; and
    - (ii) Where dikes are provided the area inside the dike and extending upward to the top of dike shall be considered to be a Class I, Division 2 location;
  - (c) The area within 1.5 metres of a vent opening and extending in all directions shall be considered a Class I, Division 1 location; and
  - (d) The area between 1.5 metres and 3 metres of a vent opening and extending in all directions shall be considered a Class I, Division 2 location.
- (5) Pits and depressions shall be classified as follows:
- (a) Any pit or depression, any part of which lies within a Division 1 or Division 2 location unless provided with positive and reliable mechanical ventilation shall be considered a Class I, Division 1 location;

- (b) Any such areas when provided with positive and reliable mechanical ventilation shall be considered a Class I, Division 2 location; or
- (c) Any pit or depression within a Division 1 or Division 2 location as defined herein, but which contains piping, valves, or fittings shall be considered a Class I, Division 2 location.

(6) Garages in which tank vehicles are stored or repaired shall be considered to be a Class I, Division 2 location up to 450 millimetres above floor or grade level unless conditions warrant more severe classification or a greater extent of the hazardous area.

(7) Buildings such as office buildings, boiler rooms, and other similar premises, which are outside the limits of hazardous areas as defined herein, and are not used for the handling or storage of volatile flammable liquids or containers for such liquids, shall not be considered to be hazardous locations.

**20-304 Wiring and Equipment in Hazardous Areas.** All electrical wiring and equipment in hazardous areas defined in Rule 20-302 shall conform to the requirements of Section 18.

#### **20-306 Wiring and Equipment Above Hazardous Areas**

(1) Wiring installed above a hazardous location shall conform to the requirements of Section 12 and be suitable for the type of building and the occupancy.

(2) Fixed equipment which may produce arcs, sparks, or particles of hot metal, such as lamps and lampholders, cutouts, switches, receptacles, motors, or other equipment having make and break or sliding contacts, shall be of the totally enclosed type or so constructed as to prevent the escape of sparks or hot metal particles.

(3) Portable lamps or utilization equipment and the flexible cords supplying them, shall conform to the requirements of Section 18 for the class of location above which they are connected or used.

#### **20-308 Sealing**

(1) Approved seals shall be installed in accordance with Section 18 and shall be applied to horizontal as well as vertical boundaries of the defined hazardous locations.

(2) Buried raceways under defined hazardous areas shall be considered to be within such areas.

**20-310 Gasoline Dispensing.** Where gasoline dispensing is carried on in conjunction with bulk station operations, the applicable provisions of Rules 20-002 to 20-014 inclusive shall apply.

**20-312 Bonding.** All non-current-carrying metal parts of equipment and raceways shall be bonded to ground in accordance with Section 10.

#### **Finishing Processes**

**20-400 Scope.** Rules 20-400 to 20-412 apply where paints, lacquers or other flammable finishes are regularly or frequently applied by spraying, dipping,

brushing or by other means, and where volatile flammable solvents or thinners are used or where readily ignitable deposits or residues from such paints, lacquers or finishes may occur.

#### 20-402 Hazardous Areas

(1) The following areas shall be considered to be Class I, Division 1 locations:

- (a) The interiors of spray booths and their exhaust ducts;
- (b) All space within 6 metres horizontally in any direction, extending to a height of 900 millimetres above the goods to be painted, from spraying operations more extensive than touch up spraying and not conducted within the spray booth;
- (c) All space within 6 metres horizontally in any direction from dip tanks and their drain boards, the space extending to a height of 900 millimetres above the dip tank and drain board;
- (d) All other spaces where hazardous concentrations of flammable vapours are likely to occur.

(2) For spraying operations within an open face spray booth, the extent of the Class I, Division 2 hazardous location shall be not less than the following:

- (a) Where the ventilation system is interlocked with the spraying equipment so as to make the spraying equipment inoperable when the ventilation system is not in operation, the space shall extend at least 1.5 metres from the open face of the spray booth, and as otherwise shown in Diagram 4;
- (b) Where the ventilation system is not interlocked with the spraying equipment so as to make the spraying equipment inoperable when the ventilation system is not in operation, the space shall extend at least 3 metres from the open face or front of the spray booth, and as otherwise shown in Diagram 5.
- (3) All space within the room but beyond the limits for Class I, Division 1 as classified in Subrule (1) for extensive open spraying, for dip tanks and drain boards, and for other hazardous operations, shall be considered to be Class I, Division 2 locations.

(4) Adjacent areas which are cut off from the defined hazardous area by tight partitions without communicating openings, and within which hazardous vapours are not likely to be released, are classed as non-hazardous.

(5) Drying and baking areas provided with positive mechanical ventilation to prevent formation of flammable concentrations of vapours and provided with effective interlocks to de-energize all electrical equipment not approved for Class I locations, in case the

ventilating equipment is inoperative, may be classed as non-hazardous.

(6) Notwithstanding the requirements of Subrule (1)(b) where adequate mechanical ventilation with effective interlocks is provided at floor level:

- (a) The space within 900 millimetres horizontally in any direction from the goods to be painted and such space extending to a height of 900 millimetres above the goods to be painted shall be considered to be a Class I, Division 1 location; and
- (b) All space between a 900 millimetre and a 1.5 metre distance above the goods to be painted and all space within 6 metres horizontally in any direction beyond the limits for Class I, Division 1 location shall be considered to be Class I, Division 2 location.

(7) Notwithstanding Subrules 20-402 (2) (a) and (b), where a full length sheet metal baffle of not less than No. 18 MSG is installed above the front face of an open face spray booth to a height of 900 millimetres vertically or to the ceiling, whichever is less, and extending back on the side edges for a distance of 1.5 metres, the space behind this baffle shall be considered an ordinary location.

#### 20-404 Wiring and Equipment in Hazardous Areas

(1) All electrical wiring and equipment within the hazardous areas as defined in Rule 20-402 shall conform to the requirements of Section 18.

(2) Unless approved for both readily ignitable deposits and the flammable vapour location, no electrical equipment shall be installed or used where it may be subject to a hazardous accumulation of readily ignitable deposits or residue.

(3) Illumination of readily ignitable areas through panels of glass or other transparent or translucent material is permissible only where:

- (a) Fixed lighting units are used as the source of illumination;
- (b) The panel is noncombustible and effectively isolates the hazardous area from the area in which the lighting unit is located;
- (c) The lighting unit is approved for its specific location;
- (d) The panel is of a material or is so protected that breakage will be unlikely; and
- (e) The arrangement is such that normal accumulations of hazardous residue on the surface of the panel will not be raised to a dangerous temperature by radiation or conduction from the source of illumination.

(4) Portable electric lamps or other utilization equipment shall:

- (a) Not be used within a hazardous area during operation of the finishing process;
  - (b) Be of a type approved for Class I locations when used during cleaning or repairing operations.
- (5) Notwithstanding Subrule (4):
- (a) Totally-enclosed and gasketed lighting may be used on the ceiling of a spray room where adequate and positive mechanical ventilation is provided; and
  - (b) Infrared paint drying units may be utilized in a spray room if the controls are interlocked with those of the spraying equipment so that both operations cannot be performed simultaneously, and if portable, the paint drying unit shall not be brought into the spray room until spraying operations have ceased.

#### 20-406 Fixed Electrostatic Equipment

(1) Electrostatic spraying and detearing equipment shall be of an approved type and conform to the following:

- (a) No transformers, power packs, control apparatus, or other electrical portion of the equipment except high voltage grids and their connections shall be installed in any of the hazardous areas defined in Rule 20-402, unless of a type approved for the locations;
- (b) High voltage grids or electrodes shall be located in suitable noncombustible booths or enclosures provided with adequate mechanical ventilation, shall be rigidly supported and of substantial construction, and shall be effectively insulated from ground by means of nonporous, noncombustible insulators;
- (c) High voltage leads shall be effectively and permanently supported on suitable insulators, shall be effectively guarded against accidental contact or grounding and shall be provided with automatic means for discharging any residual charge to ground when the supply voltage is interrupted;
- (d) Where goods are being processed:
  - (i) They shall be supported on conveyors in such a manner that minimum clearance between goods and high voltage grids or conductors cannot be less than twice the sparking distance; and
  - (ii) A conspicuous sign indicating the sparking distance shall be permanently posted near the equipment;
- (e) Approved automatic controls shall be provided which will operate without time delay to disconnect the power supply and to signal the operator in case of:
  - (i) Stoppage of ventilating fans;
  - (ii) Failure of ventilating equipment;
  - (iii) Stoppage of the conveyor carrying goods through the high voltage field;

- (iv) Occurrence of a ground or of an imminent ground at any point on the high voltage system; or
- (v) Reduction of clearance below that specified in Paragraph (d); and

(f) Adequate fencing, railings or guards which are electrically conducting and effectively bonded to ground shall be provided for safe isolation of the process; and signs shall be permanently posted designating the process zone as dangerous because of high voltage.

(2) Transformers and capacitors forming a part of fixed spraying or detearing equipment shall not be required to conform to the requirements of Section 26 of this Code.

**20-408 Electrostatic Hand Spraying Equipment.** Electrostatic hand spray apparatus and devices used therewith shall be of approved types and shall conform to the following:

- (a) The high voltage circuits shall be intrinsically safe and not produce a spark of sufficient intensity to ignite any vapour-air mixtures, nor result in appreciable shock hazard upon coming in contact with a grounded object;
- (b) The electrostatically-charged exposed elements of the hand gun shall be capable of being energized only by a switch which also controls the paint supply;
- (c) Transformers, power packs, control apparatus, and all other electrical portions of the equipment, with the exception of the hand gun itself and its connections to the power supply, shall be located outside the hazardous area;
- (d) The handle of the spray gun shall be bonded to ground by a metallic connection and be so constructed that the operator in normal operating position is in intimate electrical contact with the handle in order to prevent build-up of a static charge on the operator's body;
- (e) All electrically conductive objects in the spraying area shall be bonded to ground and the equipment shall carry a prominent permanently-installed warning regarding the necessity for this bonding feature;
- (f) Precautions shall be taken to ensure that objects being painted are maintained in metallic contact with the conveyor or other grounded support, and shall include the following:
  - (i) Hooks shall be regularly cleaned;
  - (ii) Areas of contact shall be sharp points or knife edges; and
  - (iii) Points of support of the object shall be concealed from random spray where feasible

and where the objects being sprayed are supported from a conveyor, the point of attachment to the conveyor shall be so located as not to collect spray material during normal operation; and

- (g) The spraying operation shall take place within a spray area which is adequately ventilated to remove solvent vapours released from the operation and the electrical equipment shall be so interlocked with the ventilation of the spraying area that the equipment cannot be operated unless the ventilation system is in operation.

#### **20-410 Wiring and Equipment Above Hazardous Areas**

(1) All fixed wiring above hazardous areas shall conform to Section 12.

(2) Equipment which may produce arcs, sparks, or particles of hot metal, such as lamps and lampholders for fixed lighting, cutouts, switches, receptacles, motors or other equipment having make and break or sliding contacts, where installed above a hazardous area or above an area where freshly finished goods are handled, shall be of the totally enclosed type or so constructed as to prevent the escape of sparks or hot metal particles.

**20-412 Bonding.** All metallic raceways and all non-current-carrying metallic portions of fixed or portable equipment, regardless of voltage, shall be bonded to ground in accordance with Section 10.

#### **Aircraft Hangars**

**20-500 Scope.** Rules 20-500 to 20-522 apply to locations used for storage or servicing of aircraft in which gasoline, jet fuels, or other volatile flammable liquids, or flammable gases, are used but shall not include those locations used exclusively for aircraft which have never contained such liquids or gases, or which have been drained and properly purged.

#### **20-502 Hazardous Areas**

(1) Any pit or depression below the level of the hangar floor shall be considered to be a Class I, Division 1 location that shall extend up to the floor level.

(2) The entire area of the hangar including any adjacent and communicating areas not suitably cut off from the hangar shall be considered to be a Class I, Division 2 location up to a level 450 millimetres above the floor.

(3) The area within 1.5 metres horizontally from aircraft power plants, aircraft fuel tanks or aircraft structure containing fuel shall be considered to be a Class I, Division 2 location that shall extend upward from the floor to a level 1.5 metres above the upper surface of wings and of engine enclosures.

(4) Adjacent areas in which hazardous vapours are not likely to be released such as stock rooms, electrical control rooms, and other similar locations, may be classed as non-hazardous when adequately ventilated

and when effectively cut off from the hangar itself in accordance with Rule 18-060.

#### **20-504 Wiring and Equipment in Hazardous Areas**

(1) All fixed and portable wiring and equipment which is or may be installed or operated within any of the locations defined in Rule 20-502 shall conform to the requirements of Section 18.

(2) All wiring installed in or under the hangar floor shall conform to the requirements for Class I Division 1 locations.

(3) Wiring systems installed in pits, or other spaces in or under the hangar floor shall be provided with adequate drainage and shall not be placed within the same compartment with any other service except piped compressed air.

(4) Attachment plugs and receptacles in hazardous locations shall be explosionproof, or shall be so designed that they cannot be energized while the connections are being made or broken.

#### **20-506 Wiring Not Within Hazardous Areas**

(1) All fixed wiring in a hangar not within a hazardous area as defined in Rule 20-502 shall be installed in metal raceways or shall be cable of the armoured type, or Type MI cable or aluminum sheathed cable, except that wiring in a non-hazardous location as set out in Rule 20-502(4) may be of any type recognized in Section 12 as suitable for the type of building and the occupancy.

(2) For pendants, flexible cord approved for hard usage and containing a separate bonding conductor shall be used.

(3) For portable utilization equipment and lamps, flexible cord approved for hard usage and containing a separate bonding conductor shall be used.

(4) Suitable means shall be provided for maintaining continuity and adequacy of the bonding between the fixed wiring system and the non-current-carrying metallic portions of pendant fixtures, portable lamps, and other portable utilization equipment.

#### **20-508 Equipment Not Within Hazardous Areas**

(1) In locations other than those described in Rule 20-502, equipment that is less than 3 metres above wings and engine enclosures of aircraft and which may produce arcs, sparks or particles of hot metal, such as lamps and lampholders for fixed lighting, cutouts, switches, receptacles, charging panels, generators, motors or other equipment having make and break or sliding contacts, shall be of totally enclosed type or so constructed as to prevent escape of sparks or hot metal particles, except that equipment in areas described in Rule 20-502 (4) may be of general purpose type.

(2) Lampholders of metal shell, fibre lined types shall not be used for fixed lighting.

(3) Portable lamps which are, or may be, used within a hangar shall be approved for Class I locations.

(4) Portable utilization equipment which is, or may be, used within a hangar shall be of a type suitable for use in Class I, Division 2 locations.

#### **20-510 Stanchions, Rostrums, and Docks**

(1) Electric wiring, outlets and equipment including lamps, on or attached to, stanchions, rostrums, or docks which are located, or likely to be located, in a hazardous area as defined in Rule 20-502 (3) shall conform to the requirements for Class I, Division 2 locations.

(2) Where stanchions, rostrums, and docks are not located, or are not likely to be located, in a hazardous area as defined in Rule 20-502 (3) wiring and equipment shall conform to Rules 20-506 and 20-508, except that:

- (a) Receptacles and attachment plugs shall be of the locking type which will not break apart readily; and
- (b) Wiring and equipment, not more than 450 millimetres above the floor in any position, shall conform to Subrule (1).

(3) Mobile stanchions with electrical equipment conforming to Subrule (2) shall carry at least one permanently affixed warning sign to read "WARNING—KEEP 1.5 METRES CLEAR OF AIRCRAFT ENGINES AND FUEL TANK AREAS".

#### **20-512 Sealing**

(1) Approved seals shall be installed in accordance with Section 18 and shall apply to horizontal as well as to vertical boundaries of hazardous areas.

(2) Raceways embedded in a masonry floor or buried beneath a floor shall be considered to be within the hazardous area above the floor when any connections or extensions lead into or through the hazardous area.

**20-514 Aircraft Electrical Systems.** Aircraft electrical systems shall be de-energized when the aircraft is stored in a hangar, and whenever possible, while the aircraft is undergoing maintenance.

#### **20-516 Aircraft Battery-Charging and Equipment**

(1) Aircraft batteries shall not be charged when installed in an aircraft located inside, or partially inside, a hangar.

(2) Battery chargers and their control equipment shall not be located or operated within any of the hazardous areas defined in Rule 20-502 but may be located or operated in a separate building or in an area complying with Rule 20-502 (4).

(3) Mobile chargers shall carry at least one permanently affixed warning sign to read: "WARNING—KEEP 1.5 METRES CLEAR OF AIRCRAFT ENGINES AND FUEL TANK AREAS".

(4) Tables, racks, trays, and wiring shall not be located within a hazardous area, and shall conform to the provisions of Section 26 pertaining to Storage Batteries.

#### **20-518 External Power Sources for Energizing Aircraft**

(1) Aircraft energizers shall be so designed and mounted that all electrical equipment and fixed wiring will be at least 450 millimetres above floor level and shall not be operated in a hazardous area as defined in Rule 20-502 (3).

(2) Mobile energizers shall carry at least one permanently affixed sign to read: "WARNING—KEEP 1.5 METRES CLEAR OF AIRCRAFT ENGINES AND FUEL TANK AREAS".

(3) Aircraft energizers shall be equipped with polarized external power plugs and with automatic controls to isolate the ground power unit electrically from the aircraft in case excessive voltage is generated by the ground power unit.

(4) Flexible cords for aircraft energizers and ground support equipment shall be of the extra hard usage type and shall include a bonding conductor.

#### **20-520 Mobile Servicing Equipment With Electrical Components**

(1) Mobile servicing equipment such as vacuum cleaners, air compressors, air movers and other similar equipment having electrical wiring and equipment not suitable for Class I, Division 2 locations shall:

- (a) Be so designed and mounted that all such wiring and equipment will be at least 450 millimetres above the floor;
- (b) Not be operated within the hazardous areas defined in Rule 20-502 (3); and
- (c) Carry at least one permanently affixed warning sign to read: "WARNING—KEEP 1.5 METRES CLEAR OF AIRCRAFT ENGINES AND FUEL TANK AREAS".

(2) Flexible cords for mobile equipment shall be approved for extra hard usage and shall include a bonding conductor.

(3) Attachment plugs and receptacles shall be approved for the location in which they are installed, and shall provide for connection of the bonding conductor to the raceway system.

(4) Equipment shall not be operated in areas where maintenance operations likely to release hazardous vapours are in progress, unless the equipment is at least suitable for use in a Class I, Division 2 location.

**20-522 Bonding.** All metallic raceways, and all non-current-carrying metallic portions of fixed or portable equipment, regardless of voltage, shall be bonded to ground in accordance with Section 10.

## SECTION 22—LOCATIONS IN WHICH CORROSIVE LIQUIDS OR VAPOURS OR EXCESSIVE MOISTURE ARE LIKELY TO BE PRESENT

### General

**22-000 Scope.** This Section applies to electrical equipment and installations in locations in which corrosive liquids, or vapours or excessive moisture are likely to be present, and is supplementary to, or amendatory of, the general requirements of this Code.

**22-002 Category Definitions.** Locations covered in this Section shall be classified as follows:

- (a) "Category 1", meaning that the location is one in which moisture in the form of vapour or liquid is present in quantities which are liable to interfere with the normal operation of electrical equipment, whether the moisture is caused by condensation, or the dripping or splashing of liquid, or otherwise; and
- (b) "Category 2", meaning that the location is one in which corrosive liquids or vapours are likely to be present in quantities which are likely to interfere with the normal operation of electrical equipment.

**22-004 Application of Category Definitions.** Where the expressions "Category 1" or "Category 2" do not appear in any Rule in this Section, the Rule shall be applicable to both categories.

### Equipment

#### 22-100 Essential Equipment Only

(1) Only such electrical equipment as is essential for the processes being carried on therein shall be installed in Category 1 and Category 2 locations.

(2) Service equipment, motors, panelboards, switchboards and other electrical equipment shall, where practicable, be installed in rooms or sections of the building which are not Category 1 or Category 2 locations.

#### 22-102 Type of Construction

(1) Where the electrical equipment is, or is likely to be, partially or wholly submerged, it shall be of a submersible type of construction.

(2) Where the electrical equipment is, or is likely to be, subjected to direct streams of liquid under pressure, it shall be of a water-tight type of construction.

(3) Where the electrical equipment is, or is likely to be, exposed to corrosive vapours, it shall be of a corrosion-resistant type of construction.

(4) Where the electrical equipment is, or is likely to be, exposed to splashing of water, it shall be of a weatherproof or water-tight type of construction.

(5) Where the electrical equipment is, or is likely to be, exposed only to the falling or condensing of moisture, it shall be of a dripproof, weatherproof or water-tight type of construction.

(6) Where a protective coating on electrical equipment is, or may be, exposed to corrosive liquids or vapour, the coating shall be suitable for the corrosive condition.

#### 22-104 Pendent Lampholders

(1) Pendent lampholders shall be of the weather-proof type and hung from insulated stranded copper conductors of not less than No. 14 AWG.

(2) Where the pendent conductors exceed 900 millimetres in length, they shall be twisted together.

#### 22-106 Fixtures

(1) Every lighting fixture in a Category 1 location shall be constructed so that water cannot enter or accumulate within the fixture.

(2) Every lighting fixture in a Category 2 location shall be totally enclosed, gasketed, and shall be of corrosion-resistant type of construction.

#### 22-108 Receptacles, Plugs and Cords for Portable Equipment

(1) Every receptacle and attachment plug for portable equipment shall be:

- (a) Of the weatherproof type; and
- (b) Provided with approved grounding terminals and conductors properly connected to ground.

(2) Flexible cords or power supply cables for portable equipment shall contain a grounding conductor and be of the outdoor type suitable for hard usage as indicated in Table 11.

### Wiring

#### 22-200 Wiring Method in Category 1 Locations

(1) Where conductors are exposed to moisture in a Category 1 location they shall:

(a) If used in exposed wiring, be of types specified in Table 19:

- (i) For exposed wiring in wet locations; or
- (ii) For exposed wiring where exposed to the weather, provided that they are located more than 1.5 metres horizontally or 2.5 metres vertically from floors, decks, balconies, or stairs; and

(b) If used in conduit be of types specified in Table 19 for use in raceways for wet locations.

(2) Nonmetallic sheathed cable of the NMW or NMWU type may be used in a Category 1 location.

(3) Armoured cable and aluminum sheathed cable installed in a Category 1 location shall be of the type listed in Table 19 for direct earth burial.

(4) Split knobs or cleats shall not be used in a Category 1 location.

(5) Mineral-insulated cable may be used in a Category 1 location but, if the cable is secured to walls, it shall be spaced at least 6 millimetres from the wall at each point of support.

(6) Aluminum conductors shall not be used in Category 1 locations unless the termination or joint is adequately sealed against ingress of moisture.

#### **22-202 Wiring Method in Category 2 Locations**

(1) Where conductors are exposed to corrosive vapours in a Category 2 location, they shall be:

- (a) If used in exposed wiring, be a type with corrosion resistant protection and be located more than 1.5 metres horizontally or 2.5 metres vertically from floors, decks, balconies or stairs; and
- (b) If used in conduit, be a type with corrosion resistant protection.

(2) Non-metallic sheathed cable of the NMW or NMWU type may be used in Category 2 location.

(3) Surface metal raceways, underfloor raceways, bare conductors, armoured cable except where permitted in Table 19 for exposure to corrosive action, wireways, busways, and split knobs shall not be used in Category 2 locations.

(4) Mineral-insulated cable may be used in a Category 2 location if the corrosive action is not of such a nature as to cause deterioration of the outer sheath.

(5) Aluminum-sheathed cable may be used in a Category 2 location provided it has suitable corrosion-resistant protection where necessary.

(6) Aluminum conductors shall not be used in Category 2 locations unless the termination or joint is adequately sealed against ingress of corrosive liquids or vapours.

#### **22-204 Wiring Methods in Buildings Housing Livestock and Poultry**

(1) Wiring in buildings housing livestock and poultry shall be of the type listed in Table 19 for wet locations.

(2) Where non-metallic sheathed cable is used in buildings housing livestock and poultry, it shall be of the NMW or NMWU type.

(3) Notwithstanding subrules (1) and (2) wiring listed in Table 19 for damp locations shall be permitted in buildings housing livestock or poultry when provided with adequate ventilation.

(4) Aluminum conductors shall not be used in buildings housing livestock or poultry.

#### **22-206 Rinks**

(1) Conductors run as open wiring in accordance

with Rules 12-200 to 12-224 may be used for the lighting of curling or skating rink areas which are subject to condensation provided that the conductors are suitable for wet locations as indicated by Table 19.

(2) The wiring method used in waiting rooms and other portions of rinks shall be in accordance with Section 12 based on the area and moisture conditions involved.

(3) Rink areas provided with positive mechanical ventilation capable of changing the air at least 3 times per hour may be regarded as dry locations.

#### **Drainage, Sealing and Exclusion of Moisture**

**22-300 Drip Loops.** Where exposed conductors or non-metallic sheathed cables enter into or issue from a Category 1 or Category 2 location, the conductors shall pass through the wall of the location in an upward direction from the Category 1 or Category 2 location and in the case of exposed conductors, shall be in non-combustible, non-absorptive insulating tubes.

#### **22-302 Drainage and Sealing**

(1) Where conduit is used, it shall be:

- (a) Arranged so as to drain at frequent intervals to suitable locations;
- (b) Equipped with approved fittings which permit the moisture to drain out of the system; and
- (c) Installed so as to give 12 millimetres clearance from the supporting surface when either conduit or supporting surface is metallic.

(2) Where a conduit or aluminum-sheathed cable enters a cooler atmosphere from a warmer atmosphere, it shall be sealed off so as to prevent breathing, and subsequent condensation, and in such a manner that condensate will not be trapped at the seal.

(3) Every joint in a conduit in a Category 1 location shall be watertight.

(4) Every cabinet and fitting in a Category 1 location shall be:

- (a) Of splash proof or drip proof construction;
- (b) Placed so as to prevent moisture or water from entering and accumulating within the cabinet or fitting; and
- (c) Mounted as to give at least 12 millimetres clearance from the supporting surface when either enclosure or supporting surface is metallic.

#### **Circuit Control**

**22-400 Circuit Control.** Every circuit in a Category 1 or Category 2 location shall, where practicable, be arranged so that the current-carrying conductors may be entirely cut off from the

supply of electrical power or energy at a convenient point outside the location.

### Materials

**22-500 Corrosion Resistant Material.** All conduits, metal enclosures and fittings including every bolt and screw used to secure electrical equipment shall be protected by or be of acceptable corrosion-resistant material judged suitable for the condition or approved for the specific corrosive environment.

### Grounding

**22-600 Exposed Metal Parts.** Every non-current-carrying metal part of all fixed or portable electrical equipment, including appliances, fixtures, cabinets, and metal enclosures, shall be grounded in accordance with Section 10.

## SECTION 24—PATIENT CARE AND OTHER AREAS IN HOSPITALS

### 24-000 Scope

(1) This Section applies to the installation in hospitals of:

- (a) Electrical wiring and equipment within patient care areas;
- (b) Those portions of the electrical systems designated as essential electrical systems.

(2) This Section is supplementary to, or amendatory of, the general requirements of this Code.

**24-002 Special Terminology.** In this Section, the following definitions apply:

- (a) "Anaesthetizing location" means any area of a health care facility where the induction and maintenance of general anaesthesia are routinely carried out in the course of examination or treatment of patients;
- (b) "Applied part" means the part or parts of medical electrical equipment including the patient leads which come intentionally into contact with the patient to be examined or treated;
- (c) "Basic care area" means a patient care area where body contact between a patient and medical electrical equipment is neither frequent nor usual;
- (d) "Body contact" means an intentional contact at the skin surface or internally, but not directly to the heart;
- (e) "Cardiac contact" means an intentional contact directly to the heart by means of an invasive procedure;
- (f) "Casual contact" means contact by voluntary action with a device that has no applied part

and is not intended to be connected to a patient;

- (g) "Conditional branch" means that portion of an essential electrical system in which circuits require power restoration by emergency service within 24 hours depending on special circumstances such as environmental or climatic conditions;
- (h) "Critical care area" means a patient care area in which anaesthetics are administered or in which cardiac contact between a patient and medical electrical equipment is frequent or normal;
- (i) "Delayed vital branch" means that portion of an essential electrical system in which the circuits require power restoration within 2 minutes;
- (j) "Emergency power system" means a power system supplied from an emergency supply and connected to feed essential systems;
- (k) "Emergency supply" means one or more in-house generators of electricity intended to be available in the event of a failure of all other supplies and capable of supplying all the essential loads;
- (l) "Essential electrical system" means an electrical system which has the capability of restoring and sustaining a supply of electrical energy to specified loads in the event of a loss of the normal supply of energy;
- (m) "Hazard index" means, for a given set of conditions in an isolated power system, the maximum total current, (in milliamperes) composed of resistive and capacitive leakage and fault currents, that would flow through a connection of negligible impedance between either isolated conductor and ground;
- (n) "Hospital" means an institution that is legally designated as a hospital where patients are accommodated on the basis of medical need and are provided with continuing medical care and supporting diagnostic and therapeutic services;
- (o) "Intermediate care area" means a patient care area in which there is normally or frequently an electrically conductive pathway between electromedical equipment and a patient, but not directly to the heart;
- (p) "Isolated system" means an electrical distribution system in which no circuit conductor is bonded directly to ground;
- (q) "Line isolation monitor" means a device which measures and displays the total hazard index of an isolated electrical system, and provides warning when the index reaches a preset limit;

- (r) "Normal supply" means the main electrical supply into a building or a building complex, and may consist of one or more consumer services capable of supplying all loads in the building or building complex;
  - (s) "Patient" means a person receiving medical investigation or treatment;
  - (t) "Patient care area" means an area intended primarily for the provision of diagnosis, therapy, or care;
  - (u) "Patient care location" means a zone in a patient care area which has been pre-selected for the accommodation of a patient bed, table, or other supporting mechanism, and for the accommodation of equipment involved in patient treatment, and which includes the space within the room 1.5 metres beyond the perimeter of the bed in its normal location and to within 2.3 metres of the floor;
  - (v) "Patient care location bonding point" means a common bus at a patient care location, that is bonded to ground, and that serves as a common point to which equipment and other bonding connections can be made by means of a group of jacks;
  - (w) "Permanently connected equipment" means equipment that is electrically connected to the supply by means of connectors that can be accessed, loosened or tightened only with the aid of a tool;
  - (x) "Total hazard index" means the hazard index of a given isolated system with all appliances, including the line isolation monitor, connected;
  - (y) "Vital branch" means that portion of an essential electrical system in which the circuits require power restoration within 10 seconds.
- (3) A branch circuit which supplies receptacles or permanently connected medical electrical equipment within a patient care location shall only supply loads within such locations.
- (4) All branch circuits for a patient care location shall be supplied from a single panelboard, except branch circuits intended to be part of an essential electrical system, which shall be permitted to be supplied from two panelboards, one of which is part of the essential system.
- (5) Branch circuits shall be supplied at not more than 150 volts-to-ground, unless designated for special purpose use, such as to supply mobile x-ray, laser and similar equipment, or for permanently connected equipment.

#### 24-104 Bonding to Ground in Basic Care Areas

(1) Bonding conductors shall be insulated unless they are:

- (a) installed in nonmetallic conduit, or
- (b) incorporated in a cable assembly in such a manner that contact between any metal shield or armour and a bare bonding conductor is not possible.

(2) All receptacles and other permanently connected equipment at patient care locations shall be bonded to ground by a copper equipment bonding conductor.

(3) Equipment bonding conductors shall be terminated either at the panelboard supplying the branch circuits to the patient care location from which they originate or on a bonding bus which is bonded by a copper bonding conductor to that panelboard.

(4) Existing construction using metal raceways which does not use a separate bonding conductor shall be permitted to continue in use.

(5) Exposed non-current-carrying metal parts of communication, radio or television equipment, other than telephone sets, at a patient care location, if they could become energized, shall be bonded to ground by:

- (a) Connection to the bonding screw in the communication section of a barriered and ganged metal outlet box, serving a patient care location;
- (b) Connection to an equipment bonding conductor or grounding bus for that patient care location as identified in Subrule (3).

#### Patient Care Areas

**24-100 Rules for Patient Care Areas.** Rules 24-102 through 24-114 shall apply to those patient care areas that have been designated as:

- (a) Basic care areas;
- (b) Intermediate care areas; or
- (c) Critical care areas.

#### 24-102 Circuits in Basic Care Areas

(1) The branch circuits supplying receptacles and permanently connected equipment in basic care areas shall be supplied from a grounded distribution system.

(2) Branch circuit conductors shall be copper and shall be sized not smaller than No. 12 AWG.

#### 24-106 Receptacles in Basic Care Areas

(1) Receptacles intended for a given patient care location shall be located so as to minimize the likelihood of their inadvertent use for a patient care location for which they are not intended.

(2) Receptacles which are located in areas that are routinely cleansed using liquids which normally splash against the walls, shall be installed not less than 300 millimetres above the floor.

(3) Receptacles located in bathrooms or washrooms within a patient care area shall be:

- (a) Located adjacent to the wash basin;
- (b) Located at least 1 metre outside any bathtub enclosure or shower stall; and
- (c) Protected by a ground fault circuit interrupter of the Class A type.

(4) Receptacles intended for housekeeping equipment and other non-medical loads shall be so identified.

**24-108 Circuits in Intermediate Care Areas.** The branch circuits supplying receptacles and other permanently connected equipment in intermediate care areas shall be supplied from either an isolated system meeting the requirements of Rule 24-200 or a grounded system meeting the requirements of Rule 24-102 except that:

- (a) All branch circuits, other than those supplying multi-phase equipment, shall be 2-wire circuits; and
- (b) Each patient care location shall be provided with at least one branch circuit.

**24-110 Circuits in Critical Care Areas.** The branch circuits supplying receptacles and other permanently connected equipment in critical care areas shall be supplied from an isolated system meeting the requirements of Rule 24-200.

#### **24-112 Bonding to Ground in Intermediate and Critical Care Areas**

(1) All receptacles and other permanently wired equipment shall be bonded to ground by copper equipment bonding conductors, run with circuit conductors, in accordance with the following:

- (a) Except as specified in Paragraph (b) each 2-wire branch circuit supplying a single phase receptacle at a patient care location shall be provided with a copper equipment bonding conductor;
- (b) Whenever the single-phase receptacles at the patient care location are supplied from two or more 2-wire branch circuits in the same conduit, a single copper equipment bonding conductor is permitted to be shared by the circuits.

(2) Equipment bonding conductors required by Subrules (1) and (4), shall terminate either at the panelboard supplying the branch circuits to the bed location from which they originate or on a bonding

bus which is bonded by a copper bonding conductor to that panelboard.

(3) Each item of 3-phase equipment shall be bonded to ground with a copper equipment bonding conductor, sized in accordance with Table 16, but in no case less than No. 12 AWG, connected independently both at the equipment and at the panelboard.

(4) All exposed non-current-carrying metal parts of fixed or portable electrical equipment at a patient care location, if they could become energized, shall be bonded either to a copper equipment bonding conductor, identified in Subrule (2) or to the bonding bus for that patient care location.

(5) If a patient care location bonding point is provided, it shall be bonded to the panelboard serving the patient care location with which it is associated by either:

- (a) A bonding jumper connecting it to the bonding terminal in an enclosure which accommodates the receptacles for a patient care location; or
- (b) A copper equipment bonding conductor which is installed for that specific purpose.

(6) All bonding conductors required by this rule shall meet the requirements of Subrule 24-104(1).

**24-114 Receptacles in Intermediate and Critical Care Areas.** Receptacles in intermediate and critical care areas shall conform to Rule 24-106 except that:

- (a) Receptacles intended for a given patient care location shall be located to minimize the risk of their inadvertent use for a patient care location for which they are not intended;
- (b) All 15 ampere and 20 ampere non-locking receptacles shall be Hospital Grade; and
- (c) Receptacles intended for housekeeping purposes are permitted to be other than Hospital Grade.

#### **Isolated Systems**

##### **24-200 Rules for Isolated Systems**

(1) Rules 24-202 through 24-204 shall apply to isolated systems installed under the provisions of both Rule 24-108 and 24-110.

(2) In a location supplied by an isolated system, branch circuits supplying only fixed lighting fixtures and permanently connected medical electrical equipment are permitted to be supplied by a conventional grounded system provided that wiring for grounded and isolated circuits does not occupy the same raceway.

##### **24-202 Sources of Supply**

(1) The means of supply to an isolated system shall be:

(a) The secondary of one or more transformers having no direct connection between primary and secondary windings plus a grounded metal shield between these two windings;

(b) A motor-generator set; or

(c) A suitably isolated, battery-powered inverter supply.

(2) Where more than one single-phase isolated power system serves a single location, the grounding busses of all of these systems shall be bonded together with a copper bonding conductor:

(a) Having a total impedance not greater than  $0.2 \Omega$ ; and

(b) Sized not smaller than that permitted by Table 16.

#### 24-204 Isolated Circuits

(1) Isolated circuits shall:

(a) Not be deliberately grounded except through the impedance of an approved isolation sensing device (e.g., isolation monitor);

(b) Be constructed with circuit conductors of one of the following types:

(i) RW75 EP;

(ii) RW75 XLPE;

(iii) RW90 EP; or

(iv) RW90 XLPE;

(c) Have the circuit conductors clearly identified by the colours, brown and orange, or other means unique to the facility;

(d) Have overcurrent devices that will open all circuit conductors simultaneously.

(2) Any disconnecting means controlling an isolated circuit shall safely and simultaneously disconnect all ungrounded conductors.

(3) Single phase isolated circuits shall operate at voltages (rms) between conductors not exceeding:

(a) 300 volts for special use receptacles and for permanently connected equipment; and

(b) 150 volts for other receptacles.

(4) An isolated system shall include approved automatic means (a line isolation monitor), with an indicator located where visible to persons using the system, to monitor the impedance-to-ground of the system, together with any loads connected to it.

(5) At the time of installation the total impedance (capacitive and resistive) between ground and each energized conductor of an isolated system shall exceed 500,000 ohms, without utilization equipment or the line isolation monitor connected.

(6) Where a single-phase isolated system is employed it shall supply:

(a) General-purpose receptacles at:

(i) A single anaesthetizing location;

(ii) One or more patient care locations in a single room; or

(iii) A maximum of two bed locations in separate but adjacent rooms, provided that the alarm indicator clearly identifies the bed locations affected by the fault;

(b) Special purpose receptacles at different anaesthetizing locations or in different rooms, provided that the system is used only for the one purpose.

(7) Where 3-phase isolated system is used, it shall supply:

(a) Permanently connected equipment at a single anaesthetizing location or a single bed location; or

(b) special use receptacles at:

(i) Different anaesthetizing locations, or

(ii) in different rooms,

provided the system is used for only one purpose.

(8) Each isolated circuit shall be provided with a copper equipment bonding conductor which shall terminate at the bonding bus serving the location and shall comply with Subrule 24-104(1).

#### Essential Electric Systems

**24-300 Rules for Essential Electrical Systems.** Rules 24-302 through 24-306 shall apply to those portions of a hospital electrical system in which the interruption of a normal supply of power would jeopardize the effective and safe care of patients, with the object of reducing those hazards that might arise from such an interruption.

#### 24-302 Circuits in Essential Electrical Systems

(1) An essential electrical system shall comprise those circuits that supply loads designated as being essential for the life safety and care of the patient, and the effective operation of the hospital.

(2) An essential electrical system shall comprise at least a vital branch, and may also include a delayed vital branch or a conditional branch, or both.

(3) The wiring of the essential electrical system shall be kept entirely independent of all other wiring and equipment, and shall not enter a fixture, raceway, box or cabinet occupied by other wiring except where necessary in:

- (a) transfer switches; and
- (b) emergency lighting fixtures supplied from two sources.

#### 24-304 Transfer Switches

(1) All transfer switches shall be approved and shall be in compliance with applicable codes or standards under a rule or by-law of the supply authority concerning transfer switches.

(2) Automatic transfer switches used in essential electrical systems shall conform to the requirements of CSA Standard C22.2 No. 178, Automatic Transfer Switches, and in addition, shall:

- (a) Be electrically operated and mechanically held;
- (b) Include means for safe manual operation; and
- (c) Include a by-pass system around the transfer switch.

(3) Manual transfer switches shall conform to the following:

- (a) The switching means shall be mechanically held and the operation shall be direct man-power or by electrical remote manual control utilizing control power from the supply to which the load is being transferred;
- (b) A manual transfer switch which is operated by electrical remote manual control shall include a means for safe manual mechanical operation;
- (c) Reliable mechanical interlocking and, in the case of a switch operated by electrical remote manual control, electrical interlocking to prevent interconnection of the normal and the emergency supplies of power shall be inherent in the design of a manual transfer switch; and
- (d) A manual transfer switch shall include a readily visible mechanical indicator showing the switch position.

(4) The vital and delayed vital branches shall be connected to the emergency power by means of one or more automatic transfer switches.

(5) The conditional branch shall be connected to the emergency power supply by either a manual or an automatic transfer switch.

#### 24-306 Emergency Supply

(1) An emergency supply shall be one or more generator sets driven by a prime mover and located on the hospital premises in a fire-resistant enclosure or room in accordance with the Ontario Building Code and in such a manner as to minimize the possibility of flooding and damage.

(2) The prime mover of the generating set as specified in Subrule (1) shall be capable of operating independently of supplies of water and fuel from other sources of supply.

### SECTION 26— INSTALLATION OF ELECTRICAL EQUIPMENT

#### General

**26-000 Fusible Equipment.** Fusible equipment shall employ low-melting point fuses of the type referred to in Rule 14-200 or HRC Form I fuses when connected to conductors whose ampacity is based on Table 1 or 3 or Column 4 of Table 2 or 4, unless equipment using other types of fuses is marked as being suitable for such use.

**26-002 Connection to Identified Terminals or Leads.** Wherever a device having an identified terminal or lead is connected in a circuit having an identified conductor, the identified conductor shall be connected to the identified terminal or lead.

**26-004 Equipment over Combustible Surfaces.** Where there is a combustible surface directly under stationary or fixed electrical equipment, that surface shall be covered with a steel plate at least 1.6 millimetres thick, which shall extend not less than 150 millimetres beyond the equipment on all sides, if:

- (a) the equipment is marked to require such protection; or
- (b) the equipment is open on the bottom.

**26-006 Installation of Ventilated Enclosures.** Ventilated enclosures shall be installed in such a manner that the ventilation is not restricted.

**26-008 Sprinklered Equipment.** Where electrical equipment vaults or electrical equipment rooms are required to be sprinklered by the provisions of the National Building Code of Canada, the electrical equipment contained in such vaults or rooms shall be protected where needed by noncombustible hoods or shields so arranged as to minimize interference with the sprinkler protection.

#### 26-010 Outdoor Installations

(1) Outdoor installations of apparatus, unless housed in suitable enclosures, shall be surrounded by suitable fencing in accordance with Rules 26-300 to 26-324 of this Code.

(2) Outdoor equipment shall be bonded to ground in an acceptable manner.

#### **26-012 Dielectric Liquid-Filled Equipment, Indoors**

(1) Dielectric liquid-filled electrical equipment containing more than 5 gallons of liquid in one tank shall be located in an electrical equipment vault.

(2) Except as permitted in Subrule (4), dielectric liquid-filled electrical equipment containing 5 gallons of liquid or less in one tank, shall be:

- (a) Installed in a service room conforming to the requirements of the Ontario Building Code;
- (b) Provided with a metal pan or concrete curbing capable of collecting and retaining all the liquid of the tank or tanks;
- (c) Isolated from other apparatus by fire-resisting barriers; metal-enclosed equipment being considered as providing segregation and isolation; and
- (d) Separated from other dielectric liquid-filled electrical equipment by such a distance that, if the liquid in such equipment were spread at a density of 1 gallon per 4 square feet, the areas so covered would not overlap, these areas being deemed to be circular if the tank or group of tanks is in an open area, semi-circular if the tank is against a wall and quarter-sector if the tank is in a corner.

(3) Notwithstanding Subrules (1) and (2), motor starters may have these quantities of liquids doubled.

(4) Notwithstanding Subrule (2), capacitors filled with flammable liquids of 3 gallons or less in each tank shall not be required to be installed in an electrical equipment vault nor in a building nor service room; provided that:

- (a) A metal pan or concrete curbing which is capable of collecting and retaining all the liquid of the tank or tanks is installed;
- (b) No other dielectric liquid-filled electrical equipment nor any combustible surface or material is within 4 metres unless segregated by fire-resisting barriers; metal-enclosed equipment being considered as providing segregation; and
- (c) Each capacitor tank is provided with overcurrent protection to minimize case rupture.

#### **26-014 Dielectric Liquid-Filled Equipment, Outdoors**

(1) Dielectric Liquid-filled electrical equipment containing more than 10 gallons in one tank, or 30 gallons in a group of tanks, and installed outdoors shall not, except as permitted by Subrule (3), be located within 6 metres of:

- (a) Any combustible surfaces or material on a building;
- (b) Any door or window; or
- (c) Any ventilation inlet or outlet.

(2) The dimension referred to in Subrule (1) shall be the shortest line-of-sight distance from the face of the container containing the flammable liquid to the building or part of the building in question.

(3) Notwithstanding the requirements of Subrule (1), the equipment is permitted to be installed within 6 metres of:

- (a) any combustible surfaces or materials on a building;
- (b) any door or window; or
- (c) any ventilation inlet or outlet

provided a non-combustible wall or barrier is constructed between the equipment and any structure listed in (a), (b) and (c).

(4) Where dielectric liquid-filled electrical equipment containing more than 10 gallons in one tank, or 30 gallons in a group of tanks, are installed outdoors they shall:

- (a) Be inaccessible to unauthorized persons;
- (b) Not obstruct fire fighting operations;
- (c) If installed at ground level, be located on a concrete pad draining away from structures or be in a curbed area filled with coarse crushed stone; and
- (d) Not have open drains for the disposal of flammable liquid in the proximity of combustible construction or materials.

### **Isolating Switches**

#### **26-100 Location of Isolating Switches**

(1) Isolating switches may be located so as to require the use of a hook stick to operate them.

(2) Isolating switches shall be plainly marked so as to make it unlikely that they will be opened under load, unless:

- (a) They are located or guarded so as to render them inaccessible to unauthorized persons; or
- (b) They are interlocked so that they cannot normally be opened under load.

### **Circuit Breakers**

#### **26-120 Indoor Installation of Circuit Breakers**

(1) Dielectric liquid-filled circuit breakers installed indoors shall be installed in accordance with Rule 26-012.

(2) Circuit breakers installed in electrical equipment vaults shall be operable without opening the door of the vault.

### Fuses

**26-140 Installation of Fuses.** Fuses shall be located so that:

- (a) their operation will not result in injury to persons or damage to property or other equipment; and
- (b) they can be readily inserted or removed.

### Capacitors

**26-200 Capacitors Exempted.** The requirements of Rules 26-202 to 26-222 shall not apply to capacitors that form component parts of factory assembled electrical equipment nor to surge protective capacitors.

**26-202 Capacitors Installed Indoors.** Dielectric liquid-filled capacitors located indoors shall be installed in accordance with Rule 26-012.

**26-204 Guarding of Capacitors.** All live parts of capacitors shall be inaccessible to unauthorized persons.

**26-206 Grounding of Capacitors.** Non-current-carrying metal parts of capacitors shall be bonded to ground.

**26-208 Conductor Size for Capacitors.**

(1) The ampacity of capacitor feeder circuits and branch circuits shall be not less than 135 per cent of the rated current of the capacitor.

(2) Where a branch circuit supplies two or more capacitors the overcurrent device protecting the conductors of the branch circuit shall be considered as protecting the taps made thereto to supply single capacitors provided that:

- (a) the tap is not more than 7.5 metres long; and
- (b) its conductors comply with Subrule (1) and also have an ampacity not less than one-third that of the branch-circuit conductors from which they are supplied.

**26-210 Overcurrent Protection.** An overcurrent device, rated or set as low as practicable without causing unnecessary opening of the circuit, but not exceeding 250 per cent of the rated current of the capacitor or such larger percentage as is lawful under Rule 2-030, shall be provided in each ungrounded conductor of a capacitor feeder or branch circuit.

**26-212 Disconnecting Means for Capacitor Feeder or Branch Circuits**

- (1) A disconnecting means shall be provided in each

ungrounded conductor of the capacitor feeder or branch circuit.

(2) The disconnecting means shall be within sight of and not more than 9 metres from the capacitor unless the disconnecting means can be locked in the open position.

(3) A warning notice shall be fixed to the disconnecting means used on circuits having capacitors only, reading "WARNING—CAPACITOR CIRCUIT. WAIT 5 MIN AFTER OPENING THEN SHORT CAPACITORS BEFORE HANDLING".

**26-214 Rating of the Disconnecting Means for Capacitor Feeders or Branch Circuits.** The disconnecting means for a capacitor feeder or branch circuit shall have a continuous current rating not less than the following percentage of the rated capacitor current:

- (a) Enclosed switches 165 per cent
- (b) Moulded case circuit breakers 150 per cent
- (c) Power circuit breakers 135 per cent

**26-216 Rating of Contactors for Capacitor Feeders or Branch Circuits.** Contactors used for the switching of capacitors shall have a current rating not less than the following percentage of the rated capacitor current:

- (a) Open type contactor 135 per cent
- (b) Enclosed type contactor 150 per cent

**26-218 Special Provisions for Motor Circuit Capacitors**

(1) Where a capacitor is connected on the load side of a motor circuit disconnecting means:

- (a) Individual disconnecting means for the capacitor need not be provided;
- (b) The rating of the disconnecting means, the overcurrent device, and the size of the motor-circuit conductors need not be greater than would be required without the capacitor; and
- (c) The ampacity of the conductors connecting the capacitor to the motor circuit shall be in accordance with Rule 26-208 and shall be not less than one-third that of the motor circuit conductors.

(2) Where a capacitor is connected on the load side of a motor controller:

- (a) The rating of the capacitor shall not exceed the value required to raise the no-load power factor of the motor to unity;
- (b) The rating or setting of the overload device shall be reduced to a value corresponding with

the current obtained with the improved power factor;

- (c) Individual overcurrent protection for the capacitor need not be provided;
- (d) The motor shall not be subject to star-delta-starting, auto-transformer starting, or switching service such as plugging, rapid reversals, reclosings, jogging, or other similar operations that generate overvoltages and over torques; and
- (e) Time delay devices shall be installed in the motor control circuit of motors driving high inertia loads, so that the motor cannot be restarted until the residual voltage is reduced to 10 per cent of the nominal value.

**26-220 Transformers Supplying Capacitors.** The volt-ampere rating of a transformer supplying a capacitor shall not be less than 135 per cent of the capacitor volt-ampere rating.

#### **26-222 Drainage of Stored Charge of Capacitors**

(1) Capacitors shall be provided with a means of draining the stored charge.

(2) The draining means shall be such that the residual voltage will be reduced to 50 volts or less after the capacitor is disconnected from the source of supply:

- (a) Within 1 minute in the case of capacitors rated at 750 volts or less; and
- (b) Within 5 minutes in the case of capacitors rated at more than 750 volts.
- (3) The discharge circuit shall be:
  - (a) Permanently connected to the terminals of the capacitor bank; or
  - (b) Provided with automatic means of connecting it on removal of voltage from the line.

(4) The discharge circuit shall not be switched or connected by manual means.

(5) Motors, transformers, or other electrical equipment capable of constituting a suitable discharge path, connected directly to capacitors without the interposition of a switch or overcurrent device, constitute a suitable discharge path.

### **Transformers**

#### **26-240 Transformers, General**

(1) In this Subsection, transformer means a single phase transformer, a polyphase transformer, or a bank of two or three single phase transformers connected to operate as a polyphase transformer.

(2) Transformers shall be constructed so that all live parts are enclosed unless they are installed so as to be inaccessible to unauthorized persons.

(3) Transformers shall be protected from mechanical damage.

(4) Dielectric liquid-filled transformers shall be mounted so that there will be an air space of 150 millimetres between transformers, and between transformers and adjacent surfaces of combustible material except the plane on which the transformer is mounted.

#### **26-242 Outdoor Transformer Installations.**

(1) Where transformers, including their conductors, control, and protective equipment are installed outdoors they shall:

- (a) If dielectric liquid filled, be installed in accordance with Rule 26-014;
- (b) If isolated by elevation, have the bottom of their platform not less than 3.6 metres above the ground;
- (c) If not isolated by elevation or not housed in suitable enclosures, have the entire installation surrounded by a suitable fence in accordance with Rule 26-300 to 26-324 of this Code;
- (d) Have, conspicuously posted, suitable warning signs indicating the highest potential employed except where there is no exposed live part.

(2) Dielectric liquid-filled pad-mounted transformers shall be installed at least 3 metres from any combustible surface or material on a building and shall be installed at least 6 metres from any window, door or ventilation opening on a building.

(3) Notwithstanding the requirements of Subrule (2), transformers are permitted to be installed within 6 metres of:

- (a) any door or window; or
- (b) any ventilation inlet or outlet,

provided a non-combustible wall or barrier is constructed between the transformer and any structure listed in (a) and (b).

#### **26-244 Transformers Mounted on Roofs**

(1) Except as permitted by Subrule (2) dielectric liquid-filled transformers installed on the roof of a building, shall be located in an electrical equipment vault in accordance with Rules 26-350 to 26-356, and adequately supported by means of non combustible construction.

(2) Transformers containing a non-propagating liquid suitable for the purpose, having a fire-point not less than 300°C, installed on the roof of a building need not be located in an electrical equipment vault, but

shall not be placed adjacent to doors or windows, nor within 4.5 metres of discharge vents for flammable fumes, or combustible or electrically conductive dusts.

#### **26-246 Dielectric Liquid-Filled Transformers Indoors**

(1) Except as permitted by Subrule (2) dielectric liquid-filled transformers shall be installed in accordance with Rule 26-012.

(2) Transformers containing a non-propagating liquid, suitable for the purpose, having a fire-point not less than 300°C located indoors shall be installed in an electrical equipment vault unless:

- (a) The transformer is protected from mechanical damage either by location or guarding;
- (b) A pressure relief vent is provided where the rating exceeds 25 kva at 25 cycles or 37½ kva at 60 cycles;
- (c) A means of absorbing gases generated by arcing inside the case, or a pressure relief vent connected to outdoors, is provided where the transformer is installed in a poorly ventilated location; and
- (d) Where the voltage rating exceeds 15,000 volts, the transformer is installed in a service room accessible only to authorized persons.

#### **26-248 Dry-Core, Open-Ventilated Type Transformers**

(1) Transformers of the dry-core open-ventilated type shall be mounted so that there is an air space of not less than 150 millimeters between the transformer enclosures and between a transformer enclosure and any adjacent surface, except floors.

(2) Notwithstanding Subrule (1), where the adjacent surface is a combustible material, the minimum permissible separation between the transformer enclosure and the adjacent surface shall be 300 millimeters.

(3) Notwithstanding Subrule (1), where the adjacent surface is the wall on which the transformer is mounted, the minimum permissible separation between the enclosure and the mounting walls shall be 6 millimeters if the adjacent surface is of:

- (i) Non-combustible material;
- (ii) Combustible material adequately protected by non-combustible heat insulation material other than sheet metal; or
- (iii) Combustible materials shielded by grounded sheet metal with an air space not less than 50 millimeters between the sheet metal and the combustible material.

(4) Dry-type transformers not of the sealed type

shall not be installed below grade level unless adequate provision is made to prevent flooding.

(5) Dry-type transformers not of the sealed type shall be installed in such a manner that water or other liquids cannot fall on to the winding.

**26-250 Disconnecting Means for Transformers.** A disconnecting means shall be installed in the primary circuit of each power transformer.

#### **26-252 Overcurrent Protection for Power and Distribution Transformers Rated Over 750 Volts**

(1) Except as permitted in Subrules (2), (3) and (4), each transformer shall be protected by an individual overcurrent device on the primary side, which shall be rated at not more than 150 per cent of the rated primary current of the transformer in the case of fuses, and which shall be set at not more than 300 per cent of the rated primary current of the transformer in the case of circuit breakers.

(2) Where 150 per cent of the rated primary current of the transformer does not correspond to a standard rating of a fuse, the next higher standard rating is permitted.

(3) An individual overcurrent device shall not be required where the feeder or branch circuit overcurrent device provides the protection specified in this Rule.

(4) A transformer having an overcurrent device on the secondary side rated or set at not more than the values in Table 50 or a transformer equipped with coordinated thermal overload protection by the manufacturer, shall not be required to have an individual overcurrent device on the primary side provided the primary feeder overcurrent device is rated or set at not more than the values in Table 50.

#### **26-254 Overcurrent Protection for Power and Distribution Transformers Rated 750 Volts or Less, Other than Dry Type Transformers**

(1) Except as permitted in Subrules (2), (3), (4), (5) and (6), each transformer shall be protected by an individual overcurrent device on the primary side, rated or set at not more than 150 per cent of the rated primary current of the transformer.

(2) Where the rated primary current of a transformer is:

- (a) Nine amperes or more, and 150 per cent of this current does not correspond to a standard rating of a fuse or non-adjustable circuit breaker, the next higher standard rating is permitted; or
- (b) Less than 9 amperes, an overcurrent device rated or set at not more than 167 per cent of the rated primary current is permitted, except that where the rated primary current is less than 2 amperes an overcurrent device rated

or set at not more than 300 per cent of the rated primary current is permitted.

(3) An individual overcurrent device shall not be required where the feeder or branch circuit overcurrent device provides the protection specified in this Rule.

(4) A transformer having an overcurrent device on the secondary side rated or set at not more than 125 per cent of the rated secondary current of the transformer shall not be required to have an individual overcurrent device on the primary side provided the primary feeder overcurrent device is rated or set at not more than 300 per cent of the rated primary current of the transformer.

(5) Notwithstanding Subrule (4), where the rated secondary current of a transformer is:

- (a) Nine amperes or more, and 125 per cent of this current does not correspond to a standard rating of a fuse or non-adjustable circuit breaker, the next higher standard rating is permitted; or
- (b) Less than 9 amperes, an overcurrent device rated or set at not more than 167 per cent of the rated secondary current is permitted.

(6) A transformer equipped with coordinated thermal overload protection by the manufacturer and arranged to interrupt the primary current, shall not be required to have an individual overcurrent device on the primary side if the primary feeder overcurrent device is rated or set at a value:

- (a) Not more than 6 times the rated current of the transformer for a transformer having not more than  $7\frac{1}{2}$  per cent impedance; or
- (b) Not more than 4 times the rated current of the transformer for a transformer having more than  $7\frac{1}{2}$  per cent but not more than 10 per cent impedance.

#### 26-256 Overcurrent Protection for Dry-Type Transformers Rated 750 Volts or Less

(1) Except as permitted in Subrule (2), each transformer shall be protected by an individual overcurrent device, on the primary side, rated or set at not more than 125 per cent of the rated primary current of the transformer and this primary overcurrent device is permitted to be considered as protecting secondary conductors and panelboards rated at 125 per cent or more of the rated secondary current.

(2) Notwithstanding Subrule (1), a transformer having an overcurrent device on the secondary side set at not more than 125 per cent of the rated secondary current of the transformer shall not be required to have an individual overcurrent device on the primary side provided the primary feeder overcurrent device is set at not more than 300 per cent of the rated primary current of the transformer.

(3) Where 125 per cent of the rated primary current

of the transformer does not correspond to a standard rating of the overcurrent device, the next higher standard rating is permitted.

#### 26-258 Conductor Size for Transformers

(1) The conductors supplying transformers shall have an ampacity rating:

- (a) Not less than 125 per cent of the rated primary current of the transformer for a single transformer; or
- (b) Not less than the sum of the rated primary currents of all transformers plus 25 per cent of the rated primary current of the largest transformer for a group of transformers operated in parallel or on a common feeder.

(2) The secondary conductors connected to transformers:

- (a) Shall have an ampacity rating not less than 125 per cent of the rated secondary current of the transformer for a single transformers; or
- (b) Shall have an ampacity rating not less than 125 per cent of the sum of the rated secondary currents of all the transformers operated in parallel.

(3) Notwithstanding Subrules (1) and (2), primary and secondary conductors are permitted to have an ampacity rating not less than that required by the demand load, provided they are protected in accordance with Rules 14-100 and 14-104.

(4) Where multi-rating transformers are used, the primary and secondary conductors shall have an ampacity rating not less than 125 per cent of the rated primary and secondary current of the transformer at the utilization voltage.

#### 26-260 Overcurrent Protection of Instrument Voltage Transformers

(1) Except under the conditions of Subrules (2), (3), and (4), instrument voltage transformers shall have primary fuses rated not more than:

- (a) 10 amperes for low-voltage circuits; and
- (b) 3 amperes for high-voltage circuits.

(2) Primary fuses shall not be installed where they would be connected in the grounded primary neutral connection of "Y" or "Open Y" connected voltage transformers.

(3) Primary fuses may be omitted:

- (a) Where the transformers are protected by adequate power fuses or other adequate protective devices for clearing equipment failures; and convenient means are provided for disconnecting the transformers on the primary side;

- (b) Where voltage transformers and meters, operating at low-voltage and installed in suitable enclosures, are used in place of self-contained meters; or
- (c) Where both voltage and current transformers are supplied by the manufacturer in a single enclosure filled with an acceptable insulating medium, which may be air for use on low-voltage circuits if the enclosure is non-combustible, and where:
  - (i) The primary terminals outside the enclosure are common to both voltage and current transformers; and
  - (ii) The enclosures are installed outdoors if filled with an insulating medium which will burn in air.

(4) The installation of primary fuses in the centre (common) phase primary connection of "open-delta" connected potential (voltage) transformers is permitted providing the installation is acceptable and is not forbidden by a code or standard under a rule or by-law of the supply authority concerning the installation of "open-delta" potential (voltage) transformers.

**26-262 Marking of Transformers.** Each transformer shall be provided with a nameplate bearing the following marking:

- (a) **Maker's name;**
- (b) **Rating in kva;**
- (c) **Rated full-load temperature rise;**
- (d) **Primary and secondary voltage ratings;**
- (e) **Frequency in Hertz;**
- (f) **Liquid capacity, if of the liquid-filled type;**
- (g) **Type of liquid to be used;**
- (h) **Rated impedance, if of the power or distribution type; and**
- (i) **Basic impulse insulation level (BIL) for transformers rated 2.5 kilovolts voltage class and higher.**

#### **26-264 Auto-Transformers**

(1) In this Rule "auto-transformers" means transformers in which part of the turns are common to primary and secondary alternating current circuits.

(2) Auto-transformers shall not be connected to interior-wiring systems other than a wiring system or circuit used wholly for motor purposes unless:

- (a) The system supplied contains an identified grounded conductor solidly connected to a

similar identified grounded conductor of the system supplying the auto-transformer;

- (b) The auto-transformer is used for starting or controlling an induction motor;
- (c) The auto-transformer supplies a circuit wholly within the apparatus which contains the auto-transformer; or
- (d) The auto-transformer is used for fixed voltage adjustment on an existing power circuit having no identified grounded conductor.

(3) Where an auto-transformer is used for starting or controlling an induction motor it may be included in a starter case or it may be installed as a separate unit.

#### **Fences**

**26-300 General.** Rules 26-302 to 26-324 apply to fences for guarding electrical equipment, especially transformers, when located outdoors.

#### **26-302 Clearance of Equipment**

(1) The minimum clearance between the fence and unguarded live parts shall be in accordance with Table 33.

(2) The minimum clearance between the fence and enclosures containing live parts shall be 1.1 metres.

(3) The clearance shall provide adequate working space around the equipment, taking into consideration the space required for draw-out type of equipment and the opening of enclosure doors.

**26-304 Height of Fence.** The fence, excluding barbed wire, shall be not less than 1.8 metres high.

**26-306 Barbed Wire.** The fence shall be topped with not less than 3 strands of barbed wire.

#### **26-308 Setting of Posts**

(1) Posts shall be set at a depth of 1.1 metres for end, gate, and corner posts and 1 metre for line posts wherever ground conditions will permit.

(2) Where ground conditions will not permit this depth, extra bracing or concrete footings shall be provided.

(3) Concrete footings may be required for metal posts in any case.

(4) The spacing between posts shall be 3 metres maximum.

(5) End, gate, and corner posts shall be adequately braced against strain.

#### **26-310 Gates**

(1) Gates shall preferably open outwardly but, if it is necessary that they open inwardly, they shall not come into contact with the frame or enclosure of any electrical equipment when open.

(2) Gates shall be adequately braced as necessary and double gates shall be used where the width of opening exceeds 1.5 metres.

(3) Centre stops shall be provided for double gates.

(4) Gates shall have provision for securing with padlocks.

#### **26-312 Chain Link Fabric**

(1) Chain link fabric shall be securely attached to all posts and gate frames.

(2) Chain link fabric shall be reinforced as necessary at top and bottom to prevent distortion.

(3) Chain link fabric shall extend to within 50 millimetres of the ground.

(4) Chain link fabric shall be:

(a) Made of galvanized steel wire not less than 0.144 inch in diameter;

(b) Have a mesh not greater than 2 inches; and

(c) Be not less than 6 feet in width.

#### **26-314 Use of Wood**

(1) Where having regard to public safety and protection of property wood slats are used as a fence material, they shall:

(a) Extend to within 50 millimetres of the ground;

(b) Be placed on the outside of the stringers; and

(c) Be spaced not more than 40 millimetres apart, except that where the frame or enclosure of any electrical equipment is less than 2 metres from the fence, no spacing will be permitted.

#### **26-316 Posts**

(1) Metal posts shall be:

(a) Of galvanized steel;

(b) 3-inch nominal pipe size (7.59 pounds per foot) for corner, end, and gate posts; and

(c) 2-inch nominal pipe size (3.65 pounds per foot) for line posts.

(2) Wood posts shall be not less than 6 by 6 inches nominal size, and shall be suitably protected against decay.

#### **26-318 Top Rails.** Top rails shall be:

(a) Of galvanized steel;

(b) Of 1¼-inch nominal pipe size (2.25 pounds per foot); and

(c) Provided with suitable expansion joints where necessary.

**26-320 Wood Stringers.** Wood stringers shall be not less than 2 by 6 inches nominal size if two are used and not less than 2 by 4 inches nominal size if three are used.

**26-322 Wood Slats.** Wood slats shall be not less than 1 by 4 inches nominal size.

#### **26-324 Preservative Treatment**

(1) Steel or iron parts shall be either hot dip galvanized or electroplated with non-ferrous metal.

(2) Wood shall be impregnated, treated, or well painted before assembly and, where in contact with the earth or concrete, shall be impregnated or otherwise suitably treated against decay.

### **Electrical Equipment Vaults**

#### **26-350 General**

(1) For purposes of rules pertaining to the construction of electrical equipment vaults, the single word vault(s) shall be understood to have the same meaning as electrical equipment vault(s).

(2) Vaults shall not be used for storage purposes.

(3) Vaults, when required by the Rules of this Code, shall be constructed in accordance with the following Rules 26-352 to 26-356.

**26-352 Vault Size.** Vaults shall be of such dimensions as to accommodate the installed equipment with at least the minimum clearances specified in the pertinent Sections of this Code.

#### **26-353 Vault Construction**

(1) The transformer vault shall be totally enclosed by a fire separation of solid masonry or concrete construction having a fire-resistance rating of not less than 3 hours if the vault is not sprinklered or provided with any other acceptable automatic fire extinguishing system, and not less than 2 hours if the vault is so protected.

(2) The fire-resistance rating shall be based on recognized constructions which have passed testing in accordance with either CAN 4-S101-M82 "Standard Method of Fire Endurance Tests of Building Materials" or Chapter 2 "Fire Performance Ratings" of the Supplement to the National Building Code.

(3) Where a building is required to be sprinklered, the transformer vault described in Subrule (1) need not be sprinklered provided:

(a) The vault is designed for no purpose other than to contain the transformer and its associated equipment; and

(b) The vault is provided with a smoke detector which will actuate the building alarm system in

the event of a fire in the vault, and the smoke detector shall be mounted inside the vault.

(4) A vault, which is a part of a building, and houses transformers indoors, shall have:

- (a) Roofs or ceilings consisting of reinforced concrete of adequate strength for the conditions, not less than 150 millimetres thick; and
- (b) Floors consisting of reinforced concrete of adequate strength for the conditions, not less than 150 millimetres thick, except for floors which are at excavation level, which may be of reinforced concrete not less than 100 millimetres thick.

(5) Walls, roofs or ceilings, and floors shall be adequately anchored together in a manner designed to resist dislodgement by explosion.

(6) Non electrical equipment shall not penetrate fire separations making up the transformer vault, except for pipes or ducts necessary for fire protection or ventilation of the vault.

(7) Except as provided for in Subrule (10), each doorway giving access to a vault shall be provided with a fire door and frame, for flush-mounted doors, that has been certified to conform to the appropriate provisions in CAN4-S104-M80, "Standard Method for Fire Tests of Door Assemblies" and the fire door and frame shall be installed in accordance with the manufacturers instructions.

(8) Fire doors shall have a fire resistance rating not less than:

- (a) 1½ hour for vaults constructed with a 2 hour fire resistance rating; or
- (b) 2 hour for vaults constructed with a 3 hour fire resistance rating.

(9) Each fire door shall be provided with hardware approved for use with that particular door.

(10) The use of a fire door in openings giving access to a vault from an outdoor area may be waived provided there is no undue hazard to persons or property under the circumstances.

(11) All doorways communicating with the building proper, or which may communicate fire to other property shall be provided with a concrete sill of sufficient height to confine within the vault all the oil from the largest transformer or other piece of equipment installed therein, and in no case shall it be less than 100 millimetres in height.

(12) Doors shall open outward from the vault.

(13) Each door shall be provided with a substantial lock or padlock, and shall be kept locked so that unauthorized persons will not have access to the vault.

## 26-354 Ventilation

(1) In a vault where self-cooled transformers or other equipment is installed, sufficient ventilation shall be provided so as to prevent the ambient air temperature exceeding 40 degrees Celsius.

(2) In a vault ventilated directly from an outdoor area by natural ventilation without the use of ducts, and where the transformers are the principal source of heat, the combined net area of inlet and outlet openings shall not be less than 3 square inches per kva of transformer capacity with a minimum of 1 square foot, except that:

(a) Where transformers in the power class, as defined in CAN 3-C88-M79, Power Transformers and Reactors, are installed, ventilation requirements may be based on the actual full-load losses;

(b) Where one or more transformers are installed for emergency purposes only, and are not normally energized, they need not be considered in determining ventilation requirements; and

(c) The inlet for fresh air shall lead from an outdoor area and shall terminate at a point not more than 1 metre above the floor level of the vault.

(3) Where mechanical ventilation is installed, the installation shall include the following features:

(a) The vault ventilation is separate from the main building ventilation system;

(b) The vault temperature is thermostatically controlled;

(c) The ventilating fan is located so that it may be serviced without danger to personnel;

(d) A high temperature alarm is provided;

(e) The ventilating fan is cut off automatically in the event of fire; and

(f) A filter is provided in the air inlet if there is a possibility of dirt being drawn in.

(4) Ventilating ducts shall be constructed of non-combustible materials, other than aluminum, and their construction and installation shall comply with the applicable requirements of the Ontario Building Code.

(5) All ventilation openings, shall be covered with screens, louvres or equivalent, constructed of durable materials, and they shall be installed in such a manner that the cover cannot be removed from the outside by the use of common tools, that is they shall be tamper-proof.

(6)(a) Where a ventilation duct or opening pierces a vault fire separation, separating the vault from

any area other than the outdoors then a fire damper, certified to CAN 4-S112-M82, "Standard Method of Fire Tests of Fire Damper Assemblies" shall be provided in the fire separation and the damper shall have a fire resistance rating not less than;

- (i) 1½ hour for vaults constructed with a 2 hour fire resistance rating; or
- (ii) 2 hour for vaults constructed with a 3 hour fire resistance rating.
- (b) Fire dampers shall be installed in the plane of the fire separation so as to stay in place should the duct be dislodged during a fire;
- (c) Fire dampers tested in the vertical or horizontal position shall be installed in the manner in which they were tested;
- (d) A tightly fitted access door shall be installed for each fire damper to provide access for the inspection of the damper and resetting of the release device;
- (e) Fire dampers shall be arranged to close automatically upon the operation of a fusible link conforming to ULC-S505-1974, "Standard for Fusible Links for Fire Protection Service";
- (f) The sleeve through the fire separation containing the fire damper shall be at least the same gauge as the duct.

#### 26-355 Drainage

(1) A vault shall be provided with a drain or other means which will carry off an accumulation of oil or water in the vault.

(2) Where local by-laws prohibit the draining of oil into the public sewage system, the drain may empty into a covered sump or pit, provided the cover is non-combustible and a trap is provided between the drain and the sump or pit to prevent flame travel to the latter.

(3) The floor shall slope downwards towards the drain with a minimum pitch of ¼ inch per foot.

#### 26-356 Illumination

(1) Each vault shall be provided with adequate lighting controlled by one or more switches located near the entrance.

(2) Lighting fixtures shall be located so that they may be relamped without danger to personnel.

(3) Each vault shall have a grounding type receptacle, installed in accordance with Rule 26-700 (8) and located in a convenient location inside the vault and near the entrance.

#### Switchboards and Switchgear

**26-400 Switchgear Clearance from Ceiling.** Switchgear shall not be built up to a point within 900

millimetres of a ceiling of combustible material or a ceiling of plaster applied over a combustible base unless the combustible material or base is protected against damage from fire by:

- (a) Metal lath and cement plaster;
- (b) ¼ inch rigid asbestos board; or
- (c) Other acceptable means.

#### 26-402 Accessibility to Switchboards

(1) Adequate working space shall be provided about switchboards as required by Rule 2-308.

(2) All parts within a switchboard shall be accessible.

#### 26-404 Air Circuit Breakers on Switchboards.

If air circuit breakers of an open type are mounted on the front of a switchboard, they shall be mounted in a single horizontal row with their tops not less than 1.5 metres above the floor or operating platform.

#### 26-406 Conductor Covering at Switchgear

(1) Closely grouped conductors feeding to or from switchgear that do not have moisture-resistant insulation on the individual conductors shall have an overall moisture-resistant covering.

(2) Asbestos tape, if used for overall covering, shall be kept away from terminals and other live parts.

**26-408 Marking of Switchgear Assemblies.** Switchgear assemblies rated over 13.8 kilovolts shall be marked with the basic impulse insulation level (BIL).

#### 26-440 Panelboards in Dwelling Units

(1) A panelboard shall be installed in every dwelling unit including dwelling units in an apartment or in other multi-family dwellings.

(2) Every panelboard installed in accordance with Subrule (1) of this Rule shall have a single supply protected by overcurrent devices and this supply shall be capable of being disconnected without disconnecting the supply to any other dwelling unit.

#### 26-442 Locations of Panelboards

(1) Panelboards shall not be located in coal bins, bathrooms, stairways, high ambient rooms, dangerous or hazardous locations, nor in any similar undesirable places.

(2) Panelboards in dwelling units shall be installed at least 1.2 metres above the finished floor level wherever practicable.

**26-444 Supports for Panelboards.** The back surface of a panelboard is not permitted to be in direct contact

with, or within 50 millimetres through air, measured perpendicularly to the surface, of a material having a flame spread rating greater than 25, where the panel-board is located in a room or area of combustible construction.

### Lightning Arresters

#### 26-500 Use and Location of Lightning Arresters

(1) Lightning arresters shall be installed in every distributing substation in locations where lightning disturbances are of frequent occurrence and no other adequate protection is provided.

(2) Lightning arresters installed for the protection of utilization equipment:

- (a) May be installed either inside or outside the building or enclosure containing the equipment to be protected;
- (b) Shall be isolated by elevation, enclosed or made otherwise inaccessible to unauthorized persons.

#### 26-502 Indoor Installations of Lightning Arresters

(1) Where lightning arresters are installed in a building, they shall be located well away from all equipment other than that which they protect and from passageways and combustible parts of buildings.

(2) Where lightning arresters containing oil are installed in a building, they shall be separated from other equipment by walls conforming to electrical equipment vault construction requirements in accordance with Rules 26-350 to 26-356.

**26-504 Outdoor Installations of Lightning Arresters.** Where arresters containing oil are located outdoors, means of draining or absorbing oil shall be provided by:

- (a) Ditches or drains; or
- (b) Paving the yard in which the arrester is contained with cinders or other absorbent material to an adequate depth.

**26-506 Choke Coils for Lightning Arresters.** Where choke coils are used in connection with a lightning arrester, the coils shall be installed between the lightning arrester tap and the apparatus to be protected.

**26-508 Connection of Lightning Arresters.** The connection between arrester and line conductor shall be:

- (a) Of copper wire or cable not smaller than No. 6 AWG;
- (b) As short and as straight as practicable with a minimum of bends; and
- (c) Free of sharp bends and turns.

**26-510 Insulation of Lightning Arrester Accessories.** The insulation from ground and from other conductors for accessories such as gap electrodes and choke coils shall be at least equal to the insulation required at other points of the circuit.

**26-512 Grounding of Lightning Arresters.** Lightning arresters shall be grounded in accordance with Section 10.

### Storage Batteries

#### 26-540 Scope

(1) Rules 26-542 to 26-552 apply to the installation of storage batteries.

(2) Rule 26-554 applies to the installation of electrical equipment, other than storage batteries, in a battery room.

#### 26-542 Special Terminology

(1) "Storage battery" means a battery comprised of more than one rechargeable cell of the lead-acid alkaline, or other electrochemical types.

(2) "Sealed cell or battery" means a storage battery which has no provision for the addition of water or electrolyte or for the external measurement of electrolyte specific gravity.

**26-544 Location of Storage Batteries.** Batteries with exposed live parts shall be kept in a room or enclosure accessible only to authorized personnel.

#### 26-546 Ventilation of Battery Rooms or Areas

(1) Storage battery rooms or areas shall be adequately ventilated.

(2) Storage batteries shall not be subjected to ambient temperatures greater than 45°Celsius or less than the freezing point of the electrolyte.

#### 26-548 Battery Vents

(1) Vented cells shall be equipped with flame arresters.

(2) Sealed cells shall be equipped with pressure release vents.

#### 26-550 Battery Installation

(1) Battery trays, racks, and other surfaces on which batteries are mounted shall be:

- (a) Level;
- (b) Protected against corrosion from the battery electrolyte;
- (c) Covered with an insulating material having a dielectric strength of at least 1500 volts;

- (d) Of sufficient strength to carry the weight of the battery; and
  - (e) Designed to withstand vibration and sway where appropriate.
- (2) Battery cells shall be spaced a minimum of 10 millimetres apart.
- (3) Battery cells having conductive containers shall be installed on non-conductive surfaces.
- (4) Sealed cells and multi-compartment sealed batteries having conductive containers shall have an insulating support if a voltage is present between the container and ground.
- (5) Cells and multi-compartment vented storage batteries, with covers sealed to containers of non-conductive, heat resistant material, shall not require additional insulating support.
- (6) Batteries having a nominal voltage greater than 150 volts and with cells in rubber or composition containers, shall be sectionalized into groups of 150 volts or less.

#### 26-552 Wiring to Batteries

(1) The wiring between cells and batteries and between the batteries and other electrical equipment shall be:

- (a) Bare conductors which shall not be taped;
  - (b) Open wiring;
  - (c) A jacketed flexible cord;
  - (d) Mineral-insulated cable provided it is adequately protected against corrosion where it may be in direct contact with acid or acid spray; or
  - (e) Aluminum-sheathed cable provided it has suitable corrosion-resistant protection where necessary.
- (2) Where wiring is installed in rigid conduit or electrical metallic tubing:
- (a) The conduit or tubing shall be of corrosion-resistant material or other materials suitably protected from corrosion;
  - (b) The end of the raceway shall be tightly sealed with sealing compound, rubber tape, or other acceptable material, to resist the entrance of electrolyte by spray or creeping;
  - (c) The conductor shall issue from the raceway through a substantial glazed insulating bushing;

- (d) At least 300 millimetres of the conductor shall be free from the raceway where connected to a cell terminal; and
- (e) The raceway exit shall be located at least 300 millimetres above the highest cell terminal to reduce electrolyte creepage or spillage entering the raceway.

**26-554 Wiring Methods and Installation of Equipment in Battery Rooms.** The installation of wiring and equipment in a battery room shall be in accordance with the requirements for a dry location.

#### Arc Lamps

##### 26-600 Location of Arc Lamps

- (1) Outdoor arc lamps, attached to a building and supplied from the interior installation shall be suspended at least 2.5 metres above the ground level.
- (2) Indoor arc lamps shall be hung out of reach or shall be protected in an acceptable manner.

##### 26-602 Conductors to Arc Lamps

- (1) Leads to arc lamps shall have an ampacity of approximately 150 per cent of the normal current of the lamp.
- (2) The leads shall be stranded where:
  - (a) The size exceeds No. 14 AWG; and
  - (b) The lamp suspension provides for raising and lowering.

**26-604 Overcurrent Protection for Arc Lamps.** An overcurrent device shall be provided for each arc lamp or series of lamps.

##### 26-606 Resistors or Regulators

- (1) Resistors or regulators shall be enclosed in incombustible cases and located away from readily combustible material.
- (2) Incandescent lamps shall not be used as resistors or regulators.

##### 26-608 Globes and Spark Arresters

- (1) Arc lamps other than those of the enclosed arc type shall be equipped with globes and spark arresters.
- (2) Globes shall be guarded by wire netting having a mesh of not more than 32 millimetres.

#### Resistance Devices

**26-640 Location of Resistance Devices.** Resistance devices, including wiring to the resistance elements, shall be installed so that danger of igniting adjacent combustible material will be reduced to a minimum.

**26-642 Conductors for Resistance Devices.** Insulated conductors used for connection between resistance elements and controllers, unless used for infrequent motor starting, shall conform to the following:

- (a) As indicated in Table 19 as being suitable for the temperature involved and in no case less than 90C (194F);
- (b) Conductors having an approved flame-retardant outer covering may be grouped where the potential between any two conductors in the group does not exceed a maximum of 75 volts.

**26-644 Use of Incandescent Lamps as Resistance Devices**

(1) Incandescent lamps may be used:

- (a) As protective resistors for automatic controllers; or
- (b) As resistors in series with other devices if the use is lawful under Rule 2-030.

(2) Where incandescent lamps are used as resistors, they shall:

- (a) Be mounted in porcelain receptacles on incombustible supports;
- (b) Be arranged so that they cannot be subjected to a voltage greater than that for which they are rated;
- (c) Be provided with a permanently attached nameplate showing the wattage and voltage of the lamp to be used in each receptacle;
- (d) Not carry or control the main current; and
- (e) Not constitute the regulating resistance of the device.

**Receptacles and Heating and Cooking Appliances**

**Receptacles**

**26-700 General**

(1) Receptacles shall be constructed so that no outlet section will accommodate both parallel and tandem blade attachment plugs.

(2) Receptacle configurations shall be in accordance with Diagrams 1 and 2 except:

- (a) For receptacles used on equipment solely for interconnection purposes;
- (b) For receptacles for specific applications as required by other rules of this Code; or

(3) Receptacles having configurations in accordance with Diagrams 1 and 2 shall only be connected to circuits having a nominal voltage corresponding to the

rating of the configurations or to circuits having such other nominal voltage as is lawful under Rule 2-030.

(4) Receptacles connected to circuits having different voltages, frequencies or types of current (ac or dc) on the same premises shall be of such design that attachment plugs used on such circuits are not interchangeable.

(5) Receptacles shall not be of the screw base type.

(6) Receptacles with exposed terminals shall be used only in fittings, metal troughs, and similar devices.

(7) Receptacles located in floors shall be enclosed in floor boxes approved for the purpose.

(8) Where grounding type receptacles are used in existing installations to replace the ungrounded type, the grounding terminal shall be effectively bonded to ground and one of the following methods may be used:

- (a) By connection to a metal raceway or a cable sheath which is bonded to ground;
- (b) By connection to the system ground by means of a separate bonding conductor; or
- (c) By bonding to an adjacent grounded metallic cold water pipe.

(9) Notwithstanding the requirements of Subrule (8) and where a grounding means does not exist in the receptacle enclosure, receptacles without a bonding conductor shall be permitted to be installed in existing residential occupancies, provided:

- (a) the receptacles contain ground fault circuit interrupters of the Class A type; and
- (b) a bonding conductor is not extended from any ground fault circuit interrupter type receptacle, installed in accordance with Paragraph (9)(a), to any other outlet.

(10) After installation, receptacle faces shall:

- (a) Be flush with or project from faceplates of insulating material; and
- (b) Project a minimum of 0.4 millimetres from metal or conductive faceplates.

(11) Public corridors and public stairs in buildings within the scope of Part 9 of the Ontario Building Code shall have at least one duplex receptacle in each 10 metres of length or fraction thereof.

**26-701 Receptacles in Other than Residential Occupancies.** Receptacles, including those installed as part of a luminaire, shall be protected by a Ground Fault Circuit Interrupter of the Class A Type when:

- (a) The receptacle is located in a room containing

personal washing facilities such as washbasins, bath tubs, showers or similar devices; and

- (b) The receptacle is located within 3 metres of the facilities described in Paragraph (a).

## 26-702 Receptacles In Residential Occupancies

### (1) For the purposes of this Rule:

- (a) A "bathroom" means a room containing a wash basin and bathing or showering facilities;
- (b) A "washroom" means a room containing a wash basin but without bathing or showering facilities; and
- (c) "Finished wall" means any wall finished to within 450 millimetres of the floor with dry wall, wood panelling, or like material.

(2) Except as otherwise provided for in this Code, in dwelling units, receptacles shall be installed in finished walls of every room or area, other than kitchens, bathrooms, hallways, laundry rooms, water closet rooms, utility rooms or closets, so that no point along the floor line of any usable wall space is more than 1.8 metres horizontally from a receptacle in that or an adjoining space, such distance being measured along the floor line of the wall spaces involved.

(3) At least one duplex receptacle shall be provided in each enclosed area such as a balcony or porch that is not classified as a finished room or area in accordance with Subrule (2).

(4) The receptacles referred to in Subrules (2) and (3) shall be:

- (a) Duplex receptacles;
- (b) Single receptacles arranged to provide the equivalent number of contact devices.

(5) The usable wall space referred to in Subrule (2) shall include a wall space 900 millimetres or more in width but shall not include doorways, areas occupied by a door when fully opened, windows which extend to the floor, fireplaces, or other permanent installations that would limit the use of the wall space.

(6) In dwelling units there shall be installed in each kitchen:

- (a) One receptacle for each refrigerator;
- (b) A sufficient number of split receptacles along the wall behind counter work surfaces (excluding sinks, built-in equipment and isolated work surfaces less than 300 millimetres long at the wall line) so that no point along the wall line is more than 900 millimetres from a receptacle measured horizontally along the wall line; and

- (c) At least one duplex receptacle in a dining area forming part of a kitchen.

(7) Receptacles shall not be mounted facing up in the work surfaces of counters in kitchen or dining areas.

(8) No point in a hallway within a dwelling unit shall be more than 4.5 metres from a duplex receptacle as measured by the shortest path which the supply cord of an appliance connected to the receptacle would follow without passing through an opening fitted with a door.

(9) At least one duplex receptacle shall be provided:

- (a) In each laundry room or area;
- (b) In each utility room; and
- (c) In any unfinished basement area.

(10) At least one receptacle shall be installed adjacent to the washbasin located in each bathroom, washroom, or other room containing a washbasin.

(11) Receptacles located in bathrooms and washrooms shall be protected by a ground fault circuit interrupter of the Class A type, except for receptacles located in accordance with Subrule (13).

(12) Receptacles installed in bathrooms shall be located at least 1 metre from the bathtub or shower stall, this distance being measured horizontally between the receptacle and the bathtub or shower stall, without piercing a wall, partition or similar obstacle.

(13) Where a receptacle is installed in a combined bath and laundry room equipped with washing machine plumbing outlets, the receptacle for the washing machine shall be installed behind the intended washing machine location not more than 600 millimetres from the floor.

(14) Receptacles shall not be placed in ironing cabinets, cupboards, wall cabinets, nor in similar enclosures except where they are intended for use with specific appliances, other than heating appliances, which are located within the enclosure.

(15) Notwithstanding the requirements of Subrule (13), a receptacle is permitted to be installed in a cupboard, shelf, wall cabinet or enclosure for the use of a microwave oven.

(16) For each single dwelling, at least one duplex receptacle shall be installed outdoors so as to be readily accessible from ground or grade level for the use of appliances which, of necessity, are used outdoors.

(17) All receptacles installed outdoors of single dwellings and located within 2.5 metres of ground or grade level shall be protected by a ground fault circuit interrupter of the Class A Type.

(18) At least one duplex receptacle shall be provided for each car space in a garage or carport of a single dwelling.

(19) For the purposes of this Rule, all receptacles shall be of the grounding type constructed to accommodate parallel blade attachment plugs, i.e. CSA Configuration 5-15R as shown in Diagram 1.

(20) Any receptacle that is part of a lighting fixture or appliance, that is located within cabinets or cupboards as permitted by Subrule (14), or that is located more than 1.7 metres above the floor shall not be considered as any of the receptacles required by this Rule.

(21) Where a switched duplex receptacle is used in lieu of a light outlet and fixture, the receptacle shall be considered as one of the wall mounted receptacles meeting the requirements of Subrule (2), provided only half of the receptacle is switched.

(22) At least one duplex receptacle shall be provided for a central vacuum system, where the duct for such a central vacuum system is installed.

#### **26-704 Branch Circuits in Residential Occupancies**

(1) Branch circuits from a panelboard installed in accordance with Rule 26-440 shall not be connected to outlets or electrical equipment in any other dwelling unit.

(2) Each receptacle installed for a refrigerator shall be supplied by a branch circuit that does not supply any other outlets except for a recessed clock receptacle and an exhaust fan unit located in the kitchen.

(3) Except as may be permitted by Subrule (4), at least two 3-wire branch circuits shall be provided for receptacles installed along the wall of kitchen counter work surfaces of dwelling units; and

- (a) No more than two split receptacles shall be connected to a 3-wire circuit;
- (b) No other outlets shall be connected to these circuits; and
- (c) Adjacent receptacles shall not be connected to the same 3-wire circuit.

(4) Notwithstanding the requirements of Subrule (3), where the provisions of Rule 26-702(6)(b) requires only one receptacle, only one 3-wire branch circuit need be provided.

(5) A receptacle installed in a dining area forming part of a kitchen of a dwelling unit shall be supplied by a three-wire circuit to which no other outlets are connected.

(6) At least one branch circuit shall be provided solely for receptacles installed in the laundry room or area and the utility room or area.

(7) In a single dwelling, at least one branch circuit shall be provided solely for receptacles which are located outdoors.

(8) At least one branch circuit shall be provided solely for the receptacles in a carport or garage of a single dwelling except that the lighting fixtures and garage door operator for these areas may be connected to this circuit.

(9) Each receptacle installed in a cupboard, wall cabinet or enclosure for the use of a microwave oven in accordance with Rule 26-702(15), shall be supplied by a branch circuit that does not supply any other outlets and this circuit shall not be considered as forming part of the circuits required under Subrule (3).

(10) At least one branch circuit shall be provided solely for each receptacle installed to supply power to a central vacuum system.

(11) The receptacles in Subrules (7) and (8) are permitted to be connected to the same branch circuit.

#### **26-706 Receptacles Exposed to the Weather**

(1) Receptacles exposed to the weather shall be provided with weatherproof cover plates, except that, when these receptacles are installed facing downwards, at an angle of 45 degrees or less from the horizontal, standard metallic cover plates may be used.

(2) Where receptacles exposed to the weather are installed in surface-mounted outlet boxes, the cover plates shall be held in place by four screws or by some other equivalent means.

(3) Where receptacles exposed to the weather are installed in flush-mounted outlet boxes, the boxes shall be installed in accordance with Rule 12-3018 and the cover plates shall be fitted so as to make a proper weatherproof seal.

#### **26-708 Receptacles Connected to 3-Wire Branch Circuits**

(1) Where receptacles are connected to 3-wire branch circuits:

- (a) The receptacles shall be of an approved type having separate terminals for the connection of the ungrounded conductors; and
- (b) The branch circuit shall comply with Rule 14-010.

(2) Duplex receptacles having one section which will accommodate parallel blade attachment plugs and the other section which will accommodate tandem blade attachment plugs shall be connected only to 3-wire branch circuits that:

- (a) Comply with Rule 14-010; and
- (b) Are protected by overcurrent devices rated or set at not more than 15 amperes.

**Electric Heating and Cooking Appliances**

**26-740 Location of Non-Portable Appliances.** Non-portable electric heating and cooking appliances shall be installed so that the danger of igniting adjacent combustible material is reduced to a minimum.

**26-742 Rating of Portable Appliances.** The input to portable electric heating and cooking appliance for use on nominal 115-volt branch circuits protected by overcurrent devices rated or set at not more than 15 amperes shall not exceed 1,500 watts at 115 volts.

**26-744 Separate Built-In Cooking Units**

(1) Separate built-in cooking units without integral overcurrent protection shall be provided with the necessary overcurrent protection, as required by CSA Standard C22.2 No. 61-M89, Household Cooking Ranges, in a separate panel.

(2) Tap circuit conductors feeding individual separate built-in cooking units from a single branch circuit shall have an ampacity of not less than the ampere rating of the unit or heating element which they supply as determined from Tables 1 to 4, whichever is applicable.

(3) Where tap circuit conductors feed individual separate built-in cooking units having integral overcurrent protection the ampacity of the tap circuit conductor shall, in addition to complying with the requirements of Subrule (2), be not less than that of the single-branch circuit supplying them unless the tap circuit is not over 7.5 metres long in which case the ampacity may be one-third that of the single-branch circuit conductors.

**26-746 Supply Connections for Appliances**

(1) Electric heating and cooking appliances shall have only one point of connection for supply.

(2) The point of connection for a separate built-in cooking unit without integral overcurrent devices shall be in the separate panel referred to in Subrule (1) of Rule 26-744.

(3) Where an electric clothes dryer having an input in excess of 1500 watts at 115 volts but not exceeding 30 amperes, is intended to be installed in a dwelling unit, a receptacle of CSA Configuration 14-30R, as shown in Diagram 1, shall be installed for the supply of energy to the appliance.

(4) An electric clothes dryer having an input in excess of 1500 watts at 115 volts but not exceeding 30 amperes, and used in a dwelling unit, shall be cord-connected by means of a cord and attachment plug of CSA Configuration 14-30P to the receptacle referred to in Subrule (3).

(5) A receptacle of configuration 14-50R, as shown in Diagram 1, shall be installed at a suitable location in every single dwelling and in every dwelling unit of

an apartment or similar multi-dwelling building for supplying electric energy to an electric range.

(6) The receptacle required by Subrule (5) shall be installed:

- (a) Above the finished floor at a height not exceeding 130 millimetres to the centre of the receptacle;
- (b) As near midpoint as is practicable, measured along the floor line of the wall space intended for the electric range; and
- (c) With the U-ground slot orientated to either side;

(7) In a dwelling unit, a free-standing electric range having a calculated demand of 50 amperes or less, shall be cord connected by means of a cord and attachment plug of CSA Configuration 14-50P, to the receptacle referred to in Subrule (5).

(8) Appliances which are intended for connection by a wiring method as specified in Section 12, are permitted to be cord-connected using an attachment plug and receptacle, provided that by doing so there is no undue hazard to persons or property created.

(9) The receptacles required by Subrules (3) and (5) shall be flush-mounted wherever practicable.

(10) Where a wiring system intended to supply an electric clothes dryer is installed, it shall be connected to a receptacle as outlined in Subrule (3) at the load end and connected to the panel-board at the supply end.

(11) Where a receptacle as required by Subrule (3) is installed, it shall be connected to the panel-board by a wiring system as specified in Section 12.

(12) The range receptacle referred to in Subrule (5) shall be connected to the panelboard by a wiring system as specified in Section 12 and shall have overcurrent protection as required by Section 14.

(13) Notwithstanding Subrule (5), the range receptacle need not be installed in:

- (a) Dwelling units where a built-in gas fired or electric cook top or built-in gas fired or electric oven is installed; or
- (b) Other than single dwellings where provision has been made for a gas range.

**26-748 Appliances Exceeding 1,500 Watts**

(1) Every electric heating and cooking appliance rated at more than 1,500 watts shall be supplied from a branch circuit used solely for one appliance except that more than one appliance may be connected to a single-branch circuit provided that the following is used:

- (a) A multiple-throw manually-operated device

which will permit only one such appliance to be energized at one time; or

- (b) An automatic device which will limit the total load to a value which will not cause operation of the overcurrent devices protecting the branch circuit.

(2) Every electric heating and cooking appliance rated at more than 1,500 watts shall be controlled by an indicating switch which may be in the circuit or on the appliance except that:

- (a) If the rating of the appliance does not exceed 30 amperes, an attachment plug and receptacle may be used instead of a switch; and
- (b) If the appliance has more than one individual heating element each controlled by a switch, no main switch need be provided.

(3) For the purpose of this Rule, two or more separate built-in cooking units together with their overcurrent devices shall be considered as one appliance.

**26-750 Signals for Heated Appliances.** Where glue pots, soldering irons or appliances intended to be applied to combustible materials are used in other than dwelling units:

- (a) Each appliance or group of appliances shall be provided with an indicating switch and a red pilot light; or
- (b) Each appliance shall be equipped with an integral temperature limiting device, in which case the pilot light may be omitted if the omission is lawful under Rule 2-030.

#### **26-752 Installation of Storage-Tank Water Heaters**

(1) Electric storage-tank water heaters, other than those having a tank open to the atmosphere, shall be controlled by means of a temperature regulating device and shall also be provided with secondary protection which will open if the water attains a temperature of 96 degrees Celsius.

(2) The temperature regulating device referred to in Subrule (1) shall regulate the temperature of the water so that it does not exceed 90 degrees Celsius.

(3) Electric storage-tank water heaters shall be located so that the electric supply connections, service covers, and nameplate markings will be accessible after completion of the building structure.

(4) Every electric storage-tank water heater shall be supplied from a branch circuit used solely for the heater.

**26-754 Infra Red Drying Lamps.** The following requirements shall apply to the installation of infra red drying lamps:

- (a) Branch circuits shall be protected in accordance with Section 14;
- (b) Lampholders of the medium-base, unswitched, porcelain type or other types approved for the

service, may be used with lamps rated at 300 watts or less;

- (c) Screw-shell lampholders shall not be used with lamps rated at more than 300 watts unless especially approved for the purpose;
- (d) In industrial occupancies, lampholders may be operated in series on circuits of more than 150 volts to ground where adequate spacings for the higher circuit voltage are provided.

**26-756 Control of Ventilation of Commercial Cooking Equipment.** Where a fan is used to ventilate commercial cooking equipment, the control for the fan motor shall be readily accessible, within reach of the cooking equipment, and external to the ventilation duct or hood.

#### **26-758 Induction and Dielectric Heating Equipment**

(1) Overcurrent devices shall meet the requirements of Section 14, except in circuits supplying non-motor-generator equipment where the overcurrent device is permitted to be rated or set at more than 200 per cent of the ampacity of the circuit conductors.

(2) A readily accessible disconnecting means having a rating in accordance with Section 28 shall be provided for each generator, or group of generators at a single location.

(3) The supply circuit is permitted to be used as the disconnecting means if the circuit supplies only one generator.

(4) Exposed non-current-carrying metal parts of each piece of equipment shall be bonded to a common bonding point that shall be bonded to ground.

#### **Heating Equipment**

**26-800 Scope.** Rules 26-802 to 26-808 apply to circuits supplying power for the operation and control of non-portable heating equipment that uses solid, liquid, or gaseous fuel.

**26-802 Mechanical Protection of Conductors.** All branch circuit or tap conductors within 1.5 metres from the floor shall be adequately protected from mechanical injury.

**26-804 Fuel Burner Safety Controls.** Fuel burner safety controls shall be installed in accordance with the requirements of the CSA Standard C22.2 No. 3-M1988 Electrical Features of Fuel-Burning Equipment.

**26-806 Heating Equipment Rated 400,000 British Thermal Units Per Hour and less**

(1) Heating equipment having an individual input not exceeding 400,000 British Thermal Units per hour shall be installed in accordance with Subrules (2), (3), (4), and (5).

(2) All electric power for the heating unit and associated equipment operating in connection therewith, shall be obtained from a single branch circuit which shall be used for no other purpose.

(3) For the purpose of this Rule, circulating pumps, and similar equipment need not be considered as associated equipment, provided that such equipment is not essential for the safe operation of the heating unit.

(4) The branch circuit may be tapped as necessary to supply the various pieces of associated equipment, but there shall be no overcurrent protection supplied in the tap to any piece of associated equipment the operation of which is essential to the proper operation of the heating unit, unless the control equipment is of such a nature that the heating unit will be shut down if the associated equipment fails to function due to the operation of the overcurrent device.

(5) Suitable disconnecting means shall be provided for the branch circuit.

(6) The disconnecting means may be a branch circuit breaker at the distribution panelboard, provided the panelboard is located between the furnace and the point of entry to the area where the furnace is located.

(7) Where a separate switch is required, due to the unacceptable location of the branch circuit breaker, it shall:

- (a) Not be located on the furnace nor in a location which can be reached only by passing close to the furnace; and
- (b) Be marked to indicate the equipment it controls.

#### **26-808 Heating Equipment Rated at More Than 400,000 British Thermal Units Per Hour**

(1) Heating equipment whose individual input exceeds 400,000 British Thermal Units per hour shall be installed in accordance with Subrules (2) and (3).

(2) All electric power for the heating unit and associated equipment operating in connection therewith shall be obtained from a single feeder or branch circuit which shall be used for no other purposes.

(3) A suitable disconnecting means shall be provided for the feeder or branch circuit.

### **Pipe Organs**

#### **26-900 Installation of Electrically-Operated Pipe Organs**

(1) Organ blower motors, when located remote from the organ console, shall be provided with a pilot lamp located at the organ console.

(2) A receptacle shall be provided in the organ loft to facilitate the use of a portable lamp.

### **Submersible Pumps**

**26-950 Special Terminology.** In this Subsection the following definitions apply:

- (a) Submersible pump means a pump-motor combination where the enclosed electrical equipment is intended to operate submerged in water;
- (b) Deep well submersible pump means a submersible pump intended for use in a well casing or similar protective enclosure which does not have provision for electrical connection by conduit.

**26-952 General.** Submersible pumps shall be installed in accordance with the manufacturer's instructions and Rule 26-954.

**26-954 Deep Well Submersible Pumps Installed in Wells.** Deep well submersible pumps installed in wells shall comply with the following:

- (a) The power supply conductors or cable run from the well head to the pump shall be:
  - (i) Types RWU75, RWU90, TWU and TWU75 single conductors or twisted assemblies of these types, suitable for handling at minus 40 degrees Celsius; or
  - (ii) Type SOW, G, G-GC, W or the equivalent power supply cable;
- (b) The supply conductors or cable shall be suitably supported at intervals not exceeding 3 metres to the discharge pipe;
- (c) Supply conductors or cable shall be run from the well head to the main distribution panelboard in accordance with the requirements of Section 12;
- (d) Pumps shall be grounded in accordance with Section 10 except that when the discharge pipe is metallic and continuous from the pump to the well head, the equipment grounding conductor may be terminated by connection to discharge pipe at the well head location.

#### **26-956 Submersible Pumps Installed in Lakes, Rivers and Streams**

(1) Except as provided in Subrule (2) submersible pumps installed in lakes, rivers and streams and at similar locations shall comply with the following:

- (a) The voltage supplying the submersible pump shall not exceed 150 volts-to-ground;
- (b) The pump motor shall be bonded to ground by a conductor that is:
  - (i) Sized in accordance with Rule 10-814;

- (ii) Integral with the supply cable, or within the same protective enclosure as the power supply conductors if single conductors are used;
  - (iii) Of the same type of insulation as the supply conductors; and
  - (iv) Terminated adjacent to the location where the branch circuit conductors receive their supply.
- (c) The wiring method to the pump shall be:
- (i) Type RWU75, RWU90, TWU or TWU75 or equivalent single conductor or twisted assemblies of these types, suitable for handling at minus 40 degrees Celsius, enclosed in a plastic water pipe or in rigid PVC conduit; or
  - (ii) Type SOW, G, G-GC, W or equivalent power supply cable;
- (d) The branch circuit supplying the submersible pump shall be protected by a ground fault circuit interrupter with a ground fault current trip setting adjusted to function as low as practicable to permit normal operations of the pump, but in no case shall the ground fault current setting be greater than 10 milliamperes for an operating time period not exceeding 2.7 seconds; and
- (e) The supply conductors or cables shall run from an outdoor connection facility, above or below ground, to the main distribution panelboard in accordance with the requirements of Section 12.

(2) Submersible pumps operating at voltages exceeding 150 volts-to-ground, but not exceeding 5.5 kilovolts, may be installed in lakes, rivers and streams only if their installation is lawful under Rule 2-030 and,

- (a) Wiring methods used and grounding methods shall be of an acceptable type;
- (b) The electrical installation shall be maintained by a qualified electrical maintenance staff; and
- (c) The area around the submersible pump shall be protected from access by the public by fencing, cribbing or isolation and so marked.

**26-1000 Permanently Connected Data Processing Units.** Branch circuits supplying permanently connected data processing units shall supply no other types of load.

## SECTION 28—MOTORS AND GENERATORS

### Scope

**28-000 Scope.** This Section applies to the installation, wiring methods, conductors, and protection and con-

trol of electric motors and generators and is supplementary to or amendatory of, the general requirements of this Code.

### General

**28-010 Special Terminology.** In this section the following definitions apply:

- (a) "Non-continuous Duty Motor" means a motor having characteristics or ratings described in Section 0 Definitions as Short time duty, Intermittent duty, Periodic duty and Varying duty.
- (b) "Locked Rotor Current Rating" means a current rating marked on electric equipment or, where not marked, shall be deemed to be equal to six times the full load current rating from the nameplate of the equipment or from Table 44 or 45 as applicable.
- (c) "Hermetic Refrigerant Motor-Compressor" means a compressor unit in which the compressor and motor are housed within a single container structure with no external shaft or shaft seals, or the motor is housed within a container structure integral with the compressor structure, so that the motor windings operate within a refrigerant atmosphere.
- (d) "Rated Load Current for a Hermetic Refrigerant Motor-Compressor" means a value marked on a Hermetic Motor-Compressor intended for use where applicable to ascertain wiring, protection and control for the unit.

**28-012 Guarding.** Exposed live parts of motors and controllers operating at 50 volts or more between terminals shall be guarded against accidental contact by means of enclosures or by location; except that stationary motors having commutators, collectors and brush rigging located inside of motor end brackets and not conductively connected to supply circuits operating at more than 150 volts to ground are permitted to have live parts exposed.

**28-014 Methods of Guarding.** Acceptable methods of guarding of motors having exposed live parts are by:

- (a) Installation in a room or enclosure which is accessible only to authorized persons;
- (b) Installation on a suitable balcony, gallery, or platform elevated and arranged so as to exclude other than qualified persons;
- (c) Elevation by 2.5 metres or more above the floor; or
- (d) Guard rails if the motor operates at 750 volts or less.

### 28-016 Ventilation

- (1) Adequate ventilation shall be provided so as to prevent the development around motors of ambient

air temperatures exceeding 40 degrees Celsius for integral horsepower motors and 30 degrees Celsius for fractional horsepower motors.

(2) Notwithstanding Subrule (1) motors suitable for use in higher ambient temperatures shall be specifically marked for the temperatures in which they will operate.

(3) In locations where dust or flying material will collect in or on motors in such quantities as to interfere with the ventilating or cooling of motors, thereby causing dangerous temperatures, suitable types of enclosed motors which will not overheat under prevailing conditions, shall be used.

### Wiring Methods and Conductors

**28-100 Stationary Motors.** The wiring method for stationary motors shall be in accordance with the applicable requirements of Sections 12 and 36.

**28-102 Portable Motors.** Connections to portable motors are permitted to be made with flexible cord which shall have a serviceability not less than that of type S cord unless the motor forms part of a motor-operated device.

### 28-104 Motor Supply Conductor Insulation Temperature Rating and Ampacity

(1) Supply conductors to a motor connection box shall have an insulation temperature rating equal to or greater than required by Table 37, unless the motor is marked otherwise and its ampacity based on a 75 degrees Celsius conductor insulation rating, except for Class A rated motors only where their ampacity is permitted to be based on 90 degrees Celsius insulation rating when 90 degrees Celsius is used as circuit conductors to the motor.

(2) Where Table 37 requires insulation temperature ratings in excess of 75 degrees Celsius, the motor supply conductors shall be not less than 1.2 metres long and shall terminate in a location not less than 600 millimetres from any part of the motor except that for motors rated 100 horsepower or larger, their terminations shall be not less than 1.2 metres from any part of the motor.

(3) For ambients higher than 30 degrees Celsius, the supply conductor insulation rating shall be increased at least by the difference between the ambient temperature and 30 degrees Celsius.

### 28-106 Conductors, Individual Motors

(1) The conductors of a branch circuit supplying a continuous duty motor shall have an ampacity not less than 125 per cent of the full load ampere rating of the motor.

(2) The conductors of a branch circuit supplying a non-continuous duty motor shall have an ampacity not less than the ampere value obtained by multiplying

the full load ampere rating of the motor by the applicable percentage given in Table 27 for the duty involved, or in the case of a varying duty motor only, that percentage or such lesser percentage as is lawful under Rule 2-030.

(3) Notwithstanding Subrule (1), conductor ampacities are permitted to be selected from Table 26 using the full load current rating for a continuous duty motor.

(4) Tap conductors supplying individual motors from a single set of branch circuit overcurrent devices supplying two or more motors shall have an ampacity at least equal to that of the branch circuit conductors, except where the tap conductors do not exceed 7.5 metres in length, they are permitted to be sized in accordance with Subrule (1) or (2) provided the ampacity so determined is not less than  $\frac{1}{3}$  of the ampacity of the branch circuit conductors.

### 28-108 Conductors, Two or More Motors

(1) Conductors supplying a group of two or more motors shall have an ampacity equal to or exceeding:

- (a) 125 per cent of the full load current rating of the motor having the largest full load current rating plus the full load current ratings of all the other motors in the group where all motors in the group are continuously duty motors;
- (b) The total of the calculated currents determined in accordance with Rule 28-106(2) for each motor where all motors in the group are non-continuous duty motors; or
- (c) The total of the following where the group consists of two or more motors of both continuous and non-continuous duty types;
  - (i) 125 per cent of the current of the continuous duty motor having the largest full load current rating; and
  - (ii) The full load current ratings of all other continuous duty motors; and
  - (iii) The calculated current determined in accordance with Rule 28-106(2) for the non-continuous duty motors.

(2) Where the circuitry is so interlocked as to prevent all motors of the group from running at the same time, the size of the conductors feeding the group shall be permitted to be determined for the motor, or group of motors operating at the same time, having the largest rating selected as determined in Subrule (1).

(3) Where the character of the motor loading justifies reduction of the ampacity of the conductor to less than the ampacity specified in Subrule (1), demand factors may be applied if their application is lawful under Rule 2-030 and,

- (a) The conductors have sufficient ampacity for the maximum demand load; and
- (b) The rating or setting of the overcurrent devices protecting them is in accordance with Rule 28-204(4).

### 28-110 Feeder Conductors

(1) Where a feeder supplies both motor loads and other loads, the ampacity of the conductors shall be calculated in accordance with Rules 28-106 and 28-108 plus the requirements of the other loads added thereto.

(2) The ampacity of a tap from a feeder to a single set of overcurrent devices protecting a motor branch circuit shall be not less than that of the feeder, except that the ampacity of the tap is permitted to be calculated in accordance with Rules 28-106 and 28-108 if the tap:

- (a) Does not exceed 3 metres in length and is enclosed in metal; or
- (b) Does not exceed 7.5 metres in length, has an ampacity not less than 1/3 that of the feeder and is suitably protected from mechanical damage.

### 28-112 Secondary Conductors

(1) Conductors connecting the secondaries of wound rotor motors to their controllers shall have ampacities not less than:

- (a) 125 per cent of the rated full load secondary current for continuous duty motors; or
- (b) The percentage of rated full load specified in Table 27 for non-continuous duty motors.

(2) Ampacities of conductors connecting secondary resistors to their controllers shall be not less than that determined by applying the appropriate per centage in Table 28 to the maximum current which the devices are required to carry.

### Overcurrent Protection

**28-200 Branch Circuit Overcurrent Protection.** Each ungrounded conductor of a motor branch circuit shall be protected by an overcurrent device as follows:

- (a) A branch circuit supplying a single motor shall be protected, except as permitted by Subrule (3), by using an overcurrent device of rating not to exceed the values in Table 29 using the rated full load current of the motor;
- (b) Notwithstanding Subrule (1), Table 26 is permitted to be used to select the size of overcurrent devices required for a motor where the full load current rating of the motor is shown in the Table;

(c) Magnetic instantaneous trip circuit interrupters are permitted where applied in accordance with Rule 28-210;

(d) Where the overcurrent devices as determined in Subrule (1) will not permit the motor to start, the rating or setting of the overcurrent device is permitted to be increased as follows:

(i) For a non time delay fuse:

- (A) Not in excess of 400 per cent of the motor full load current for fuses rated up to 600 amperes;
- (B) Not in excess of 300 per cent of the motor full load current for fuses rated 601 to 6000 amperes; or

(ii) For a time delay fuse to a maximum of 225 per cent of the motor full load current; and

(e) For a branch circuit supplying two or more motors, the rating or setting of the overcurrent device shall not exceed the maximum value permitted by Rule 28-206.

**28-202 Overcurrent Protection Marked on Equipment.** Where branch circuit protective device characteristics and rating or setting are specified in the marking of motor control equipment, they shall not be exceeded, notwithstanding any greater rating or setting permitted by Rule 28-200.

### 28-204 Feeder Overcurrent Protection

(1) For a feeder supplying motor branch circuits only, the rating or setting of the feeder overcurrent device shall not exceed a maximum value calculated by determining the maximum rating or setting of the overcurrent device permitted by Rule 28-200 for that motor which is permitted the highest rated overcurrent devices of any motor supplied by the feeder, and adding thereto the sum of the full load current ratings of all other motors which will be in operation at the same time.

(2) Where a feeder supplies a group of motors, two or more of which are required to start simultaneously, and the feeder overcurrent devices as calculated in accordance with Subrule (1) are not sufficient to allow the motors to start, the rating or setting of the feeder overcurrent device is permitted to be increased as necessary, to a maximum not to exceed the rating permitted for a single motor having a full load current rating not less than the sum of the full load current ratings of the greatest number of motors which start simultaneously, provided this value does not exceed 300 per cent of the ampacity of the feeder conductors.

(3) Where a feeder supplies one or more motor branch circuits together with other loads, the overcurrent protection required shall be determined by calculating the overcurrent protection required for the motor circuits and adding thereto the requirements of the other loads supplied by the feeder.

(4) Where a demand factor has been applied as permitted in Rule 28-108(3), the rating or setting of the overcurrent device(s) protecting a feeder shall not exceed the ampacity of the feeder, except as permitted by Rule 14-104 and Table 13.

**28-206 Grouping of Motors on a Single Branch Circuit.** Two or more motors are permitted to be grouped under the protection of a single set of branch circuit overcurrent devices having a rating or setting calculated in accordance with Rule 28-204(1) provided that the protection conforms to one of the following:

- (a) The rating or setting of the overcurrent devices does not exceed 15 amperes; or
- (b) Protection is provided for the control equipment of the motors by having the branch circuit overcurrent devices rated or set at:
  - (i) Values not in excess of those marked on the control equipment for the lowest rated motor of the group, as suitable for the protection of that control equipment; or
  - (ii) In the absence of such markings, values not in excess of 400 per cent of the full load current of the lowest rated motor; or
- (c) The motors are used on a machine tool or woodworking machine; and
  - (i) The control equipment is arranged so that all contacts which open motor primary circuits are in enclosures, either forming part of the machine base or for separate mounting, having a wall thickness not less than 1.69 millimetres for steel, 2.4 millimetres for malleable cast iron, or 6.3 millimetres for other cast metal, having hinged doors with substantial catches, and having no openings to the floor or the foundation on which the machine rests; and
  - (ii) The rating or setting of the overcurrent devices does not exceed 200 amperes at 250 volts or less, or 100 amperes at voltages from 251 to 750 volts; or
- (d) All the motors are operated by a single controller, as provided for in Rule 28-500(3)(d); or
- (e) The group of motors form part of the coordinated drive of a single machine or process, wherein the failure of one motor to operate creates a hazard unless all the other motors in the group are stopped, and the grouping is lawful under Rule 2-030.

**28-208 Size of Fuseholders.** Where fuses are used for motor branch circuit or feeder protection, the fuseholders shall be not of a size smaller than required to accommodate fuses of the maximum rating permitted

by Tables 29 or 26 except that fuseholders of a smaller size are permitted to be used:

- (a) Where Rule 28-202 is applicable;
- (b) Where fuses having time delay appropriate for the starting characteristics of the motor are used, in which case the fuseholders shall not be smaller than required to accommodate fuses rated at 125 per cent of the full load current of the motor; or
- (c) In the case of a circuit supplying a group of motors, where the fuseholders accommodate fuses of a size calculated by taking 150 per cent of the largest motor current and adding thereto the applicable full load currents of all other motors in the group which may be in operation at the same time.

**28-210 Instantaneous Trip Circuit Interrupters.** Instantaneous trip circuit interrupters when used for branch circuit protection, shall be:

- (a) Part of a combination motor starter or controller that also provides overload protection;
- (b) Rated or adjusted, for an A.C. motor, to trip at not more 1300 per cent of the motor full load current or at not more than 215 per cent of the motor locked rotor current, where given, except that ratings or settings for trip currents need not be less than 15 amperes; and
- (c) Rated or adjusted, for a D.C. motor rated at 50 horsepower or less to trip at not more than 250 per cent of the motor full load current, or for a direct current motor rated at more than 50 horsepower, to trip at not more than 200 per cent of the motor full load current.

### Overload and Overheating Protection

**28-300 Overload Protection Required.** The branch circuit conductors and control equipment of each motor shall have overload protection, except as permitted by Rule 28-308.

### 28-302 Types of Overload Protection

- (1) Overload devices shall be either:
  - (a) A separate overload device which is responsive to motor current and which are permitted to combine the function of overload and overcurrent protection if it is capable of protecting the circuit and motor under both overload and short circuit conditions; or
  - (b) A protective device, integral with the motor and responsive to motor current or to motor current and temperature, provided such device will protect the circuit conductors and control equipment as well as the motor.

(2) Fuses used as separate overload protection of motors shall be time delay fuses of the type referred to in Rule 14-200.

#### 28-304 Number and Location of Overload Devices

(1) The number and location of current responsive devices shall, unless otherwise required, be as follows:

- (a) If fuses are used, one in each ungrounded conductor; or
- (b) As specified in table 25, if devices other than fuses are used.

(2) Where current responsive devices are used for the overload protection of 3-phase motors, such devices shall be comprised of three current responsive elements which are permitted to be:

- (a) Connected directly in the motor circuit conductors as required by Subrule (1); or
- (b) Fed by two or three current transformers so connected that all three phases will be protected.

#### 28-306 Rating or Trip Selection of Overload Devices

(1) Overload devices responsive to motor current shall be rated or selected to trip at not more than the following:

- (a) 125 per cent of the full load current rating of a motor having a marked service factor of 1.15 or greater; or
- (b) 115 per cent of the full load current rating of a motor which does not have a marked service factor or where the marked service factor is less than 1.15.

(2) Notwithstanding Subrule (1), Table 26 is permitted to be used to determine the value of the overload device required for motors having a service factor of 1.15 or greater for a motor where the full load current rating of the motor is listed in the table.

(3) Where a motor overload device is so connected that it does not carry the total current designated on the motor nameplate, such as for wye-delta starting, the per centage of motor nameplate current applying to the selection or setting of the overload device shall be clearly marked on the motor starter or shown in the motor starter manufacturers overload selection table.

**28-308 Overload Protection not Required.** Overload protection shall not be required for motors complying with any of the following:

- (a) A manually started motor rated at 1 horsepower or less that is continuously attended while in operation, which is on a branch circuit

having overcurrent protection rated or set at not more than 15 amperes or on an individual branch circuit having overcurrent protection as required by Table 29 or 26 if it may be readily determined from the starting location that the motor is running;

- (b) A motor constructed so that it cannot be overloaded;
- (c) A motor whose operating requirements are such that it is impracticable to obtain proper overload protection; or
- (d) An automatically started motor having a rating of 1 horsepower or less forming part of an assembly equipped with other safety controls that protect the motor from damage due to stalled-rotor current and on which a nameplate, so located as to be visible after installation, indicates that such protection features are provided.

**28-310 Shunting of Overload Protection During Starting.** Overload protection is permitted to be shunted or cut out of the circuit during the starting period, provided that the device by which the protection is shunted or cut out cannot be left in the starting position, and provided that the overcurrent device is in the motor circuit during the starting period.

**28-312 Automatic Restarting after Overload.** Where automatic restarting of a motor after a shut down on overload could cause injury to persons, the overload or overheating devices protecting the motor shall be so arranged that automatic restarting cannot occur.

**28-314 Overheating Protection Required.** Each motor shall be provided with overheating protection except as permitted by Rule 28-318.

#### 28-316 Types of Overheating Protection

(1) Overheating protection, where required by Rule 28-314, shall be provided by devices integral with the motor and responsive to both motor current and temperature or to motor temperature only, and shall be arranged to cut off power to the motor, or, if lawful under Rule 2-030, to activate a warning signal when the temperature exceeds the safe limit for the motor.

(2) Motors with inherent overheating protection acceptable under Subrule (1), shall be marked to indicate that they are thermally protected or impedance protected.

**28-318 Overheating Protection Not Required.** Overheating protection shall not be required;

- (a) Where the motor circuit requires no overload protection under Rule 28-308; or
- (b) Where overload protective devices required by Rule 28-302 adequately protect the motor

against overheating due to excess current and the motor is in a location where:

- (i) Ambient temperatures are not more than 10 degrees Celsius higher than those at the location of the overload devices; and
- (ii) Dust or other conditions will not interfere with the normal dissipation of heat from the motor.

#### Undervoltage Protection

**28-400 Undervoltage Protection Required for Motors.** Motors shall be disconnected from the source of supply in case of low voltage by one of the following means unless it is evident that no hazard will be incurred through lack of such disconnection:

- (a) When automatic restarting is liable to create a hazard, the motor control device shall provide low-voltage protection; or
- (b) When it is necessary or desirable that a motor stop on failure or reduction of voltage and automatically restart on return of voltage, the motor control device shall provide low-voltage release.

#### Control

##### 28-500 Control Required

(1) Except as permitted by Subrule (3), each motor shall be provided with a motor starter or controller for starting and stopping it having a rating in horsepower now less than the rating of the motor it serves.

(2) A motor controller need not open the circuit in all ungrounded conductors to a motor unless it also serves as a disconnecting means.

(3) The motor starter or controllers specified in Subrule (1) shall not be required for motors connected or controlled as follows:

- (a) A single phase portable motor rated at  $\frac{1}{3}$  horsepower or less connected by means of a receptacle and attachment plug rated not in excess of 15 amperes 125 volts;
- (b) A motor controlled by a manually operated general-use switch complying with Rule 14-510 having an ampere rating not less than 125 per cent of the full load current rating of the motor;
- (c) A two wire portable alternating current or direct current motor having a rating not in excess of  $\frac{1}{3}$  horsepower 125 volts controlled by a horsepower rated single pole motor switch;
- (d) Two or more motors that are required to operate together shall be permitted to be operated

from a single controller specifically approved for such purpose; or

- (e) For a motor where the controller is specifically approved for use with that motor, it need not be rated in horsepower.

**28-502 Control Location.** A motor controlled manually, either directly or by a control remote from the motor starter, shall have the means of operation of the controller so located;

- (a) That safe operation of the motor and the machinery driven by it is assured, or the motor and the machinery shall be guarded or enclosed so as to prevent accidents due to contact by persons with live or moving parts; or
- (b) Where compliance with Subrule (1) is not practicable because of the type, size, or location of the motor or machinery and its parts, devices shall be provided at each point where the danger of accidents exists whereby the machine or parts of the machine may be stopped in an emergency.

##### 28-504 Starters Having Different Starting and Running Positions

(1) Manual motor starters having different starting and running positions shall be constructed so that they cannot remain in the starting position;

(2) Magnetic motor starters having different starting and running positions shall be constructed so that they cannot remain in the starting position under normal operating conditions.

**28-506 Grounded Control Circuit.** When power for a control circuit for a motor controller is obtained conductively from a grounded system, the control circuit shall be so arranged that an accidental ground in the wiring from the controller to any remote or signal device will not:

- (a) Start the motor; or
- (b) Prevent the stopping of the motor by the normal operation of any control or safety device in the control circuit.

#### Disconnecting Means

##### 28-600 Disconnecting Means Required

(1) Except as permitted by Subrules (2) and (3) a separate disconnecting means shall be provided for:

- (a) Each motor branch circuit;
- (b) Each motor starter or controller; and
- (c) Each motor.

(2) A single disconnecting means is permitted to serve more than one of the functions described in Subrule (1).

(3) A single disconnecting means is permitted to serve two or more motors and their associated starting and control equipment grouped on a single branch circuit.

## 28-602 Types and Ratings of Disconnecting Means (See Appendix B)

(1) A disconnecting means for a motor branch circuit shall be:

- (a) A manually operable fused or unfused motor circuit switch, which complies with Rule 14-010(b) and has a horsepower rating not less than that of the motor it serves;
- (b) A moulded case switch or circuit breaker which complies with Rule 14-010(b) and has a current rating not less than 115 per cent of the full load current rating of the motor it serves;
- (c) An instantaneous trip circuit interrupter which complies with Rules 14-010(b) and 28-210;
- (d) An equivalent device which opens all ungrounded conductors of the branch circuit simultaneously and is capable of safely making and interrupting the locked rotor current of the connected load;
- (e) A single plug fuse for a branch circuit having one grounded conductor feeding a two-wire single phase alternating current or direct current motor rated at not more than  $\frac{1}{3}$  horsepower provided it is used only as an isolating means and is not used to interrupt current; or
- (f) The draw out feature of a high voltage motor starter or controller of the draw-out type which complies with Rule 14-010(b), is used only as an isolating means and is not used to interrupt current.

(2) A disconnecting means serving a group of motors on a single branch circuit, shall have:

- (a) A current rating not less than 115 per cent of the full load current rating of the largest motor in the group plus the sum of the full-load current ratings of all the other motors in the group which may be in operation at the same time; and
- (b) A horsepower rating not less than the largest motor in the group if a motor circuit switch is used.

(3) A disconnecting means for a motor, motor starter or controller shall comply with Subrule (1), except that:

- (a) An isolating switch or a general use switch used as an isolating switch, if capable of being loaded in the open position, marked as required by Rule 26-100(2) and has a current rating not less than 115 per cent of the full load current rating of the motor it serves is permitted to serve as the disconnecting means for a motor or motor starter:
  - (i) Rated at more than 100 horsepower if for 3 phase operation, or
  - (ii) Rated at more than 50 horsepower if for other than 3 phase operation;
- (b) A manually operated across-the-line type of motor starter shall be permitted to serve as both starter and disconnecting means for:
  - (i) A single motor providing it has a horsepower rating not less than the single motor it serves;
  - (ii) A group of motors providing it has a horsepower rating not less than the largest motor in the group, and a current rating not less than 115 per cent of the full load current of the largest motor in the group plus the sum of the full load currents of all the other motors in the group which may be in operation at the same time;
- (c) An attachment plug is permitted to serve as a disconnecting means for a portable motor and its starting and control equipment provided:
  - (i) The attachment plug and receptacle has a current rating not less than the ampacity of the minimum size conductors permitted for the motor branch circuit or tap in which they are connected and are used only as an isolating means and not to interrupt current; or
  - (ii) The attachment plug and receptacle is used as permitted by Rule 28-500(3);
- (d) The draw-out feature of a high voltage starter or controller of the draw-out type is permitted to serve as the disconnecting means for the motor or controller providing it is used only as an isolating means and is not used to interrupt current;
- (e) A manually operated general use alternating current switch complying with the requirements of Rule 14-510 having a current rating not less than 125 per cent of the full load current of the motor and which need not be horsepower rated is permitted to be used as a disconnecting means for a single phase motor;
- (f) A fused or unfused motor circuit switch is permitted to be used as a disconnecting means for a group of motors served from a single circuit

and need not have a rating greater than that necessary to accommodate the proper fuse rating required for the fused switch provided it has:

- (i) A horsepower rating not less than that of the largest motor in the group; and
- (ii) A current rating not less than 115 per cent of the full load current of the largest motor in the group plus the sum of the full load currents of all the other motors in the group which may be in operation at the same time.

(4) A disconnecting means shall not be of a type which is electrically operated either automatically or by remote control.

#### 28-604 Location of Disconnecting Means

(1) Motor branch circuit disconnecting means described in Rule 28-602-(1)(a), (b), (c) and (d) shall:

- (a) Be located at the distribution center from where the motor branch circuit originates; and
- (b) Where intended to serve as a single disconnecting means for a motor branch circuit, a motor and controller or starter shall also:
  - (i) Be located in accordance with Subrule (3); or
  - (ii) Be capable of being locked in the open position by an acceptable locking device, and be clearly labelled to describe the load or loads connected.

(2) Motor branch circuit disconnecting means described in Rule 28-602(1)(f) shall be located in accordance with Subrule (3).

(3) Motor and motor starter or controller disconnecting means shall be located:

- (a) Within sight of and within 9 metres of the motor and the machinery driven thereby; and
- (b) Within sight of and within 9 metres of the motor starter or controller.

(4) Notwithstanding Subrule (3) where a motor or group of motors is fed from a single branch circuit where the branch circuit disconnecting means is not capable of being acceptably locked in the open position and where the motor disconnecting means is a manually operable across the line type of motor starter, the motor disconnecting means is permitted to be located beyond the limits defined in Subrule (3) providing it is capable of safely making and interrupting the locked rotor current of the connected load, is capable of being locked in the open position and it can be demonstrated that location in accordance with Subrule (3) is clearly impracticable.

- (5) Disconnecting means shall be readily accessible

or have the means for operating them readily accessible.

(6) Motor driven machinery of a movable or portable type for industrial use shall have a motor circuit switch or circuit breaker mounted on the machine and accessible to the operator.

#### Hermetic Refrigerant Motor-Compressors

**28-700 Rules for Hermetic Refrigerant Motor-Compressors.** Rules 28-702 to 28-714 apply to hermetic motor-compressors, hereinafter referred to as motor-compressors, and are supplementary to or amendatory of the general Rules of this section.

**28-702 Marking.** Motor-compressors, or equipment including motor compressors, shall be marked as required by Rule 2-100; specifically the marking shall show the rated load current and the locked rotor current rating.

#### 28-704 Horsepower Rated Equipment.

(1) Horsepower rated equipment used for the control of motor-compressors and not having a locked rotor current rating shall be given an equivalent locked rotor current rating equal to 6 times the full-load current rating.

(2) Where the full-load current rating is not marked, an equivalent full-load current rating shall be determined from the horsepower rating by referring to Table 44 or 45 as applicable.

**28-706 Conductor Ampacity.** The ampacity of conductors of a branch circuit supplying a motor-compressor, or equipment comprised of one or more motor-compressors and other loads, shall be based upon the marked rated load current of the motor compressor or equipment and shall comply with the general requirements of this section.

#### 28-708 Overcurrent Protection

(1) Except as permitted in Subrule (2) each ungrounded conductor of a branch circuit feeding a motor compressor shall be protected by an overcurrent device rated or set at not more than 50 per cent of the locked rotor current of the motor compressor, unless such a device will not permit the motor compressor to start, in which case the rating or setting may be increased to a value not exceeding 65 per cent of the locked rotor current of the motor compressor.

(2) Subrule (1) shall not be deemed to require use of overcurrent devices rated or set at less than 15 amperes.

**28-710 Overload Protection.** The branch circuit conductors and control equipment for each motor compressor shall be provided with overload protection complying with Rules 28-302 and 28-306 except that:

- (a) The rating or setting of overload relays shall

not exceed 140 per cent of the marked rated load current of the motor compressor;

- (b) The rating or setting of other overload devices, such as fuses, shall not exceed 125 per cent of the marked rated load current of the motor compressor; and
- (c) Approved assemblies comprising one or more motor compressors with or without other loads in combination are acceptable with the overload protection included as part of the approved assembly.

## 28-712 Control Equipment

(1) Control equipment used for the control of motor compressors shall have:

- (a) Either a marked or an equivalent locked rotor current rating not less than that of the motor compressor which it controls; and
- (b) Either a marked or an equivalent full load current rating not less than that of the rated load current of the motor compressor which it controls.

(2) In all other respects, control equipment for motor-compressors shall be in accordance with Rules 28-500, 28-502 and 28-506.

## 28-714 Disconnecting Means

(1) The disconnecting means serving a motor compressor shall have:

- (a) A continuous duty current rating not less than 115 per cent of the rated load current of the motor compressor; and
- (b) An interrupting capacity, or an equivalent locked rotor current rating, as determined in accordance with Rule 28-704, of not less than the locked rotor current rating of the motor compressor.

(2) Where one disconnecting means serves one or more motor compressors together with other loads, the disconnecting means shall have:

- (a) A continuous duty current rating of not less than 115 per cent of the rated load current of the motor or motor compressor having the largest rated load current plus the sum of the rated load currents and full-load currents of all other loads which may be in operation at the same time; and
- (b) An interrupting capacity or equivalent locked rotor current rating as determined in accordance with Rule 28-704 of not less than the locked rotor current rating of the motor or motor compressor having the largest marked or equivalent locked rotor current rating, plus the

sum of the full-load current rating of all other loads which may be in operation at the same time.

## Multi-Winding and Part-Winding Start Motors

**28-800 Rules for Multi-Winding and Part-Winding Start Motors.** Rules 28-802 to 28-812 apply to the installation of multi-winding and part-winding start motors.

**28-802 Permanent Connection.** Where a multi-winding motor is used with windings connected in a permanent configuration, it shall be treated as a single winding motor with ratings corresponding to the winding configuration used.

## 28-804 Conductor Sizes

(1) The circuit conductors on the supply side of the controller for a multi-winding or part-winding start motor shall be of a size specified by Rule 28-106 for the largest full load current of any winding configuration provided by the controller as connected.

(2) Each conductor run from the controller to the motor shall be of the size specified by Rule 28-106 for the largest full load current of any winding or winding configuration which it must supply.

## 28-806 Overcurrent Protection

(1) Each ungrounded conductor on the supply side of the controller shall be protected by an overcurrent device rated or set in accordance with Rule 28-200 for the largest full load current rating of any winding configuration provided by the controller as connected.

(2) Each ungrounded conductor run from the controller to the motor shall be protected by an overcurrent device rated or set in accordance with Rule 28-200 for the largest full load current of any winding configuration served by the conductor so protected, unless the overcurrent device required by Subrule (1) adequately protects it.

## 28-808 Overload Protection

(1) Each winding or configuration shall be provided with overload protection in accordance with Rules 28-300 to 28-310 inclusive, rated or set at not more than 125 per cent of the full load current rating of the winding or configuration so protected, or at not more than the values given in Table 26 for a motor of equal rating.

(2) For a part-winding start motor, separate overload devices need not be supplied for each winding, provided that overload devices are:

- (a) Located in the circuit feeding that winding which is used for starting;
- (b) Arranged to de-energize both windings when an overload occurs; and

- (c) Selected in accordance with the motor or equipment manufacturers recommendation or of a rating not exceeding 50 per cent of the value given in Column 4 of Table 26, whichever is greater.

**28-810 Controls.** Each multi-winding or part-winding start motor shall be provided with starting and control equipment in accordance with Rules 28-500, 28-502 and 28-506, except that:

- (a) The controller shall be specifically approved for use with the motor which it controls;
- (b) Where separate control equipment is provided for each winding or configuration, the individual controllers shall be rated in horsepower (or locked rotor current) not less than the rating of the winding or configuration controlled by each, and interlocks shall be provided where necessary to prevent simultaneous operation of controllers not intended to be so operated; or
- (c) The starting and control equipment for each primary winding of a part-winding start motor shall have a horsepower (or locked rotor current) rating not less than that of the motor, unless specifically approved for use with that motor.

**28-812 Disconnecting Means.** Each multi-winding motor and its control equipment shall be provided with disconnecting means in accordance with Rules 28-600 to 28-604 except that, for the purpose of Rule 28-602, the horsepower (or locked rotor current) rating of the motor shall be that for the winding or configuration having the largest horsepower (or locked rotor current) rating and, the full-load current rating of the motor shall be that for the winding or configuration having the largest full-load current rating.

#### Protection and Control of Generators

**28-900 Disconnecting Means Required for Generators.** Generators shall be equipped with an indicating switch or circuit breaker by means of which the generator and all protective devices and control apparatus are able to be disconnected entirely from the circuits supplied by the generator except where;

- (a) The driving means for the generator can be readily shut down; and
- (b) The generator is not arranged to operate in parallel with another generator or other source of voltage.

#### 28-902 Protection of Constant-Voltage Generators

(1) Constant-voltage generators, whether direct current or alternating current shall be protected from excess current by overcurrent devices, except that:

- (a) Where the type of apparatus used and the nature of the system operated make protective devices inadvisable or unnecessary, protective

devices need not be provided if the failure to provide them would be lawful under Rule 2-030;

- (b) Where an alternating current generator and a transformer are located in the same building, and are intended to operate as a unit for stepping up or stepping down voltage, the protective devices shall be permitted to be connected to the primary or to the secondary of the transformer.

(2) Subrule (1) shall not apply to exciters for alternating-current machines.

**28-904 Generator Not Driven by Electricity.** Where a generator not driven by electricity supplies a 2-wire grounded system, the protective device shall be capable of disconnecting the generator from both conductors of the circuit.

**28-906 Balancer Sets.** Where a 3-wire direct-current system is supplied by 2-wire generators operated in conjunction with a balancer set to obtain a neutral, the system shall be equipped with protective devices which disconnect the system in the event of an excessive unbalancing of voltages.

#### 28-908 3-Wire Direct-Current Generators

(1) Three-wire direct current generators, whether shunt or compound wound, shall be equipped with:

- (a) A 2-pole circuit breaker with two tripping elements; or
- (b) A 4-pole circuit breaker connected in the main-and-equalizer leads and tripped by two tripping elements.

(2) The circuit breaker shall be connected so as to be actuated by the entire armature current.

(3) One tripping element shall be connected in each armature lead.

### SECTION 30—INSTALLATION OF LIGHTING EQUIPMENT

**30-000 Scope.** This Section is supplementary to, or amendatory of, the general requirements of this Code and applies to installations as follows:

- (a) Interior lighting equipment—Rules 30-100 to 30-822; and
- (b) Outdoor lighting equipment—Rules 30-900 to 30-1122.

#### INTERIOR LIGHTING EQUIPMENT

##### General

**30-100 General.** Rules 30-100 to 30-822 apply to:

- (a) The installation of interior lighting fixtures,

lampholders, pendants, rosettes, incandescent filament lamps, electric discharge lamps; and

- (b) The wiring and electrical equipment used in conjunction therewith.

### 30-102 Voltage

(1) Circuit voltages shall not exceed 150 volts-to-ground in dwelling units.

(2) In other than dwelling units, the branch circuit voltage shall not exceed the voltage-to-ground of a nominal system voltage of 347/600Y.

### 30-104 Protection

(1) Incandescent medium-base luminaires and incandescent medium-base lampholders shall not be connected to a branch circuit protected by overcurrent devices rated or set at more than 15 amperes.

(2) Notwithstanding Subrule (1), in other than dwelling units, incandescent and medium-base luminaires and incandescent medium-base lampholders shall be permitted to be connected to a branch circuit protected by an overcurrent device rated or set at not more than 20 amperes.

(3) Subrule (1) shall not apply to medium-base lampholders which form an integral part of a luminaire having mogul-base lampholders.

(4) Incandescent mogul-base luminaires and mogul-base lampholders shall not be connected to a branch circuit protected by overcurrent devices rated or set at more than 40 amperes.

(5) Fluorescent luminaires shall not be connected to a branch circuit protected by overcurrent devices rated or set at more than 15 amperes except for circuits supplying fluorescent luminaires only, where the luminaire wiring and ballasts are enclosed in metal, the rating of the overcurrent protection may exceed 15 amperes but shall not exceed 20 amperes.

(6) High intensity discharge (HID) luminaires which incorporate mogul-base lampholders shall not be connected to a branch circuit protected by overcurrent devices rated or set at more than 40 amperes.

### Location of Lighting Equipment

#### 30-200 Near or Over Combustible Material

(1) Lighting fixtures installed where combustible material is liable to be stored shall be equipped with shades or guards so as to limit the temperature to which the combustible material may be subjected to a maximum of 90 degrees Celsius.

(2) Luminaires and lampholders installed under the conditions of Subrule (1) shall be of the unswitched type.

(3) Where luminaires or lampholders are installed over readily combustible material, every luminaire

and lampholder shall be controlled by an individual wall switch, but a wall switch may control more than one luminaire or lampholder if every luminaire and lampholder is located at least 2.5 metres above floor level, or located or guarded so that the lamps cannot be readily removed or damaged.

(4) Switches and lampholders installed under the conditions of Subrule (1) shall have no exposed wiring.

### 30-202 In Show Windows

(1) No luminaire having exposed wiring other than a luminaire of a chain suspension type shall be used in a show window.

(2) No lampholder having a paper or fibre lining shall be used in a show window.

(3) Exposed flexible cord or fixture wire shall not be used to supply permanently installed lighting fixtures in show cases or wall cases.

### 30-204 In Clothes Closets

(1) Every luminaire installed in a clothes closet shall be located on the ceiling or on the front wall above the door of the closet, unless mounted on the trim or sidewall of the doorway and approved for the application.

(2) Electric luminaires of the pendent type shall not be installed in a clothes closet.

### Installation of Lighting Equipment

#### 30-300 Live Parts

(1) Luminaires, lampholders, and rosettes shall be installed so that no live part is exposed to contact while they are in use.

(2) Where lampholders and switches have exposed accessible terminals, they shall not be installed in metal luminaire-canopies or in open bases of portable lamps.

#### 30-302 Supports

(1) Every luminaire, lampholder, and rosette shall be securely supported.

(2) Where a luminaire weighs more than 6 pounds or exceeds 16 inches in any dimension, it shall not be supported by the screw-shell of the lampholder.

(3) Where the weight of a luminaire does not exceed 25 pounds it shall be permitted to be supported directly by an outlet box or by an outlet box that is mounted on a bar hanger.

(4) Where a luminaire, weighs more than 25 pounds, it shall be supported independently of the outlet box, or by means of an acceptable fixture hanger with integral outlet box.

**30-304 Outlet Boxes to be Covered**

(1) Every outlet box used with lighting equipment shall be provided with a cover or covered by a luminaire-canopy, lampholder, rosette, or other device.

(2) Where any part of a combustible wall or ceiling is exposed between the edge of a luminaire-canopy or pan and an outlet box, the part of the wall or ceiling shall be covered with noncombustible material.

**30-306 Wiring Space**

(1) Every luminaire-canopy and outlet box shall be installed so as to provide adequate space for conductors and connections.

(2) Every luminaire shall be so constructed and installed that conductors in the luminaire and outlet box are not subjected to temperatures greater than those for which the conductors are approved.

**30-308 Recessed luminaires**

(1) The recessed portion of every recessed luminaire enclosure shall be at least 12.5 millimetres from combustible material at every point other than at a point of support.

(2) Every recessed luminaire shall be so installed that adjacent combustible material is not subjected to temperatures in excess of 90 degrees Celsius.

(3) Where a luminaire is recessed in noncombustible material in a building of noncombustible construction, the noncombustible material may be subjected to temperatures of not more than 150 degrees Celsius but the luminaire shall be plainly marked as approved for the service.

(4) Recessed luminaires shall not be used when blanketed with thermal insulation unless the luminaires are marked and approved for this use.

**30-310 Circuit Connections**

(1) Every luminaire shall be installed so that the connections between the luminaire conductors and the branch circuit conductors may be inspected without disconnecting any part of the wiring unless the connection employs a plug and receptacle.

(2) Luminaires weighing more than 4.5 kilograms shall be installed so that the branch circuit wiring connections and the grounding connections will be accessible for inspection without removing the luminaire supports.

(3) Branch circuit conductors within 75 millimetres of a ballast within the ballast compartment shall have a maximum allowable conductor temperature of not less than 90°C.

**30-312 Luminaire as a Raceway**

(1) Branch circuit conductors run through a luminaire shall be contained in a raceway which is an integral part of the luminaire and which meets the requirements for a lighting fixture raceway, except that the conductors of a 2-wire, 3-wire, or 4-wire branch circuit supplying the luminaires may be carried through:

- (a) An installation of fixtures approved and marked for end-to-end assembly to form a continuous channel; or
- (b) Fixtures which are connected together by acceptable wiring methods.

(2) Ballasts located within lighting fixtures referred to in Subrule (1) shall be deemed to be sources of heat and the conductors supplying the fixtures shall:

- (a) Have a voltage rating not less than 600 volts;
- (b) Have a temperature rating not less than 90 degrees Celsius;
- (c) Be not smaller than No. 14 AWG; and
- (d) Be of a type listed in:

(i) Table 19, as being suitable for use in raceways; or

(ii) Table 11, as being suitable for use in accordance with this Rule, provided the conductors are not smaller than No. 14 AWG and do not extend beyond the luminaires through raceways more than 2 metres long.

(3) Notwithstanding Subrule (2), non-metallic sheathed cable may be used for supplying luminaires provided it has a temperature rating of 90 degrees Celsius.

**30-314 Polarization of Luminaires**

(1) A luminaire shall be wired so that all screw-shells of its lampholders are connected to the same luminaire conductor or terminal, which shall be connected either to the grounded circuit conductor, if one exists, or to ground, by a separate connection, providing that an isolating (2-winding) type transformer or ballast is used but, if no grounded circuit conductor exists, the lampholders shall be supplied from an isolating (2-winding) type transformer or ballast with the screw-shells separately connected to ground.

(2) Notwithstanding Subrule (1), where a high-intensity discharge lamp ballast supplies two lamps in series, the screw-shell of one lampholder need not be at ground potential, provided that removal of its lamp isolates the screw-shell.

(3) Notwithstanding Subrule (1), where an approved luminaire assembly incorporating a guard or

other means to prevent accidental contact with bare live parts while inserting or removing the lamps is provided:

- (a) Connection of the screw-shell to the grounded non-current-carrying metal parts of the luminaire is not required; and
- (b) An isolating (2-winding) transformer or ballast is not required.

**30-316 Combustible Shades and Enclosures.** Every luminaire having a combustible shade or enclosure shall be installed so as to provide an adequate air space between the lamps and the combustible shade or enclosure.

### **30-318 Minimum Height of Low Luminaires**

(1) Where a rigid luminaire or lampholder is located at a height of less than 2.1 metres above the floor and is readily accessible, the luminaire or lampholder shall be protected from mechanical injury by a guard or by location.

(2) A short flexible drop light or luminaire may be used in place of the rigid luminaire in Subrule (1).

**30-320 Luminaires Exposed to Flying Objects.** Where luminaires are installed in gymnasiums or similar locations where the lamps are normally exposed to damage from flying objects, the lamp shall be guarded by one of the following means:

- (a) Metal reflectors that effectively protect the lamps;
- (b) Metal screens;
- (c) Enclosures of armoured glass or suitable plastic material.

**30-322 Canopy Switches.** Canopy switches shall only be attached to luminaires and luminaire-canopies having knockouts suitably constructed and located for the accommodation of such switches, or they may be located in the chain.

### **30-324 Luminaires in Damp or Wet Locations**

(1) Luminaires installed in damp or wet locations shall be approved for such locations and be so marked.

(2) Luminaires suitable for use in wet locations may also be used in damp locations.

### **30-326 Lighting Equipment in Damp Locations or Near Grounded Metal**

(1) Where lampholders or luminaires are installed in damp locations or within 2.5 metres vertically or 1.5 metres horizontally of laundry tubs, plumbing fixtures, steam pipes or other grounded metal work or grounded surfaces, the lampholders or luminaires shall

be controlled by a wall switch, except as permitted in Subrule (2).

(2) A lampholder having an outer shell of insulating material, or a luminaire, installed under the conditions of Subrule (1), may have an integral switch if the operating means for the switch is suitably insulated from live parts and, if of the pullchain type, conforms to Rule 30-610.

(3) Switches (including wall switches) for controlling lampholders or fixtures covered by Subrule (1) shall not be located within 1 metre of a shower or bathtub.

### **30-328 Stair Lighting in Dwelling Units**

(1) Except as provided in Subrule (2), every stairway in a dwelling unit shall be lighted and where the stairway has four or more risers, the lighting shall be controlled by 3-way wall switches or the functional equivalent located at the head and foot of the stairway.

(2) The stairway lighting for basements or cellars that do not contain a finished area nor lead to an outside entrance or built-in garage, and which serve not more than one dwelling unit, is permitted to be controlled by a single switch located at the head of the stairs.

**30-330 Totally-Enclosed Gasketed Luminaires.** Incandescent totally-enclosed gasketed luminaires, unless marked as suitable for the purpose, shall not be mounted on a combustible ceiling.

## **Wiring of Lighting Equipment**

### **30-400 Wiring of Luminaires**

(1) All electrical wiring on or within a luminaire shall be:

- (a) Neatly arranged without excess wiring;
- (b) Not exposed to mechanical injury; and
- (c) Arranged so that it is not subjected to temperatures above those for which it is approved.

(2) No joint or tap shall be located within an arm or stem of a luminaire.

**30-402 Colour Coding.** Notwithstanding the requirements of Sections 0, 4, and 10 with regard to the colours used for distinguishing and identifying conductors, a continuous-coloured tracer in the braid of an individual braided conductor is permitted for the supply conductors of a luminaire; the colour of the tracer being black, white, and green for the ungrounded, identified and grounding conductors respectively.

**30-404 Conductor Insulation.** Luminaires shall be wired with conductors at least No. 18 AWG, having insulation suitable for the voltage and temperatures to which the conductors may be subjected.

### **30-406 Conductors on Movable Parts**

(1) Stranded conductors shall be used on chain fixtures and other movable parts of lighting equipment.

(2) Conductors shall be arranged so that the weight of the lighting fixture or the movable parts does not place undue tension on the connections.

(3) All conductors which supply movable parts of lighting equipment shall be protected against mechanical injury.

### **30-408 Pendant Conductors for Incandescent Filament Lamps**

(1) Where pendant lampholders having permanently attached leads are used with other than festoon wiring, they shall be hung from separate stranded rubber- or thermoplastic-insulated pendant conductors which are connected directly to the circuit conductors but supported independently thereof.

(2) Where thermoplastic-insulated pendant conductors are used in locations where they may be subjected to temperatures lower than  $-10^{\circ}\text{C}$  they shall be of a type approved for the purpose.

(3) Where the pendant conductors supply mogul or medium-base screw-shell lampholders, they shall be not smaller than No. 14 AWG.

(4) Where the pendant conductors supply intermediate or candelabra-base lampholders other than approved Christmas-Tree and decorative lighting-outfits, the conductors shall be not smaller than No. 18 AWG.

(5) Where the pendant conductors are longer than 900 millimetres, they shall be twisted together.

### **30-410 Wiring of Recessed Luminaires**

(1) Conductors having insulation suitable for the temperature encountered shall be used for wiring recessed luminaires.

(2) Branch circuit conductors having insulation suitable for the temperature encountered are permitted to be run directly to the luminaire.

(3) Tap connection conductors shall:

(a) Have insulation suitable for the temperatures encountered;

(b) (i) Be not smaller than No. 18 AWG copper run in a factory installed raceway; or

(ii) Be not smaller than No. 14 AWG copper if the raceway is provided but not factory assembled to the luminaire;

(c) Extend at least 150 millimetres from the raceway; and

(d) Be installed in a raceway extending at least 450 millimetres but not more than 2 meters from the luminaire, and terminate in an outlet box located not less than 300 millimetres from the luminaire.

(4) The outlet box referred to in Subrule (3) (c) shall be accessible as required by Rule 12-3018, and if access is through the opening for mounting the luminaire, or through some other opening in the ceiling, this opening shall be not less than 32,000 square millimetres with no dimension less than 200 millimetres and the outlet box shall be mounted within 350 millimetres of the opening.

(5) A supply connection box forming part of an approved fixture assembly shall be accessible in accordance with Rule 12-3018, and if access is through the opening for mounting the fixture, the following requirements shall be met:

(a) The electrical components of the luminaire shall be capable of extraction through the opening for service; these components shall include the lampholder, the leads to the lampholder, and the connections in the supply connection box; and

(b) The cover of the supply connection box shall be capable of removal by a hand tool held below the ceiling.

(6) Branch circuit conductors shall not pass through the supply connection box forming part of an approved fixture assembly unless the fixture is approved and marked for the purpose.

### **30-412 Wiring of Ceiling Outlet Boxes**

(1) Branch circuit conductors used for the wiring of all ceiling outlet boxes on which a lighting fixture is, or may be mounted, shall have:

(a) insulation suitable for 90 degrees Celsius;

(b) insulation suitable for at least 60 degrees Celsius for boxes;

(i) Located in unheated concrete slabs;

(ii) Remote from a fixture;

(iii) Mounted in or on vertical walls; or

(iv) In barns or other damp locations;

(c) insulation suitable for at least 75 degrees Celsius for boxes located in cable-heated concrete ceilings.

(2) For the purpose of compliance with this Rule, the ampacity of the conductors referred to in Subrule (1) shall be limited to the ampacity of 60 degrees Celsius wire.

(3) Notwithstanding Subrule (1), conductors having insulation suitable for 90 degrees Celsius will not be required for:

- (a) Boxes located in concrete slabs;
- (b) Boxes remote from a fixture;
- (c) Boxes mounted in or on vertical walls; or
- (d) Boxes in barns or other damp locations;

except where the boxes are located in cable-heated concrete ceilings.

#### 30-414 Wiring of Show Window Luminaires

(1) Where show window luminaires are closely spaced, they are permitted to be connected to a conductor suitable for the purpose which is listed in Table 11, with a temperature rating of not less than 125 degrees Celsius.

(2) The connection of show window luminaires to the circuit conductors shall be in a junction box.

(3) The junction box shall be maintained at a sufficient distance from the luminaire to ensure that the circuit conductors are not subjected to temperatures in excess of their rating.

#### Grounding of Lighting Equipment

**30-500 Grounding.** Non-current-carrying metal parts of luminaires and associated equipment shall be grounded in accordance with Section 10.

#### Rosettes and Lampholders

##### 30-602 Lampholder Rating with Incandescent Lamps

(1) Every medium-base lampholder shall have a rating of 660 watts, 250 volts.

(2) Where medium-base lampholders are not of special heat-resisting construction, they shall not be used with incandescent lamps rated in excess of 300 watts.

(3) Where medium-base lampholders are used with incandescent lamps rated at 300 watts, the lamps shall be provided with a heat-deflecting disc or equivalent device.

(4) Mogul-base lampholders shall not be used with incandescent lamps rated at more than 1,500 watts.

**30-604 Connections to Lampholders.** The identified conductor, if present, shall be connected to the lampholder screw-shell.

**30-606 Conductor Mechanical Protection.** Where a metal lampholder is attached to a flexible cord, the inlet for the flexible cord shall be equipped with an insulating bushing but if the lampholder is provided with a side outlet, a metal grommet may be used.

**30-608 Switched Lampholders Used on Unidentified Circuits.** Where lampholders of the switched type are used on unidentified 2-wire circuits tapped from the ungrounded conductors of multi-wire circuits, the switching devices of the lampholders shall disconnect both conductors of the circuit simultaneously.

**30-610 Switched Lampholders With Pull-Type Mechanisms.** On switched type lampholders employing pull-type mechanisms, the operating means shall be:

- (a) Cords made of approved insulating materials;
- (b) Cords of approved insulating materials, or chains with links of approved insulating material, connected to metal chains as close as possible to where the chains emerge from the enclosure; or
- (c) Metal chains without insulating links provided that the lampholder is approved as not requiring insulating links.

#### 30-612 Lampholders in Wet and Damp Locations

(1) Where lampholders are installed in wet or damp locations, they shall be of the weatherproof type.

(2) Where lampholders installed in wet or damp locations are of insulating material, they shall be capable of resisting mechanical shock.

**30-614 Approved Rosettes.** Separable rosettes which make possible a change in polarity shall not be used.

**30-616 Rosettes in Wet or Damp Locations.** Where rosettes are installed in wet or damp locations, they shall be of the weatherproof type.

#### 30-618 Portable Handlamps

(1) Where a lampholder of the portable handlamp type is supplied through a flexible cord, the lampholder shall be of moulded composition or other type approved for the purpose.

(2) Every portable handlamp shall be equipped with a handle of moulded composition or other approved material.

(3) Where portable handlamps are subject to mechanical damage or may come in contact with combustible material, they shall be equipped with a substantial guard attached to the lampholder or to the handle.

#### Electric-Discharge Lighting Systems Operating at 1,000 Volts or Less

**30-700 Rules for Discharge Lighting Systems 1000 Volts or Less.** Rules 30-702 to 30-714 apply to electrical equipment used with electric-discharge lighting systems operating at 1000 volts or less.

**30-702 Oil-Filled Transformers.** Transformers of the oil-filled type shall not be used.

**30-704 Direct-Current Equipment.** Fixtures shall not be installed on a direct-current circuit unless they are equipped with auxiliary equipment and resistors designed for direct-current operation; and the fixtures are so marked.

**30-706 Voltages, Dwelling Units.** Where equipment has an open-circuit voltage of more than 300 volts, it shall not be installed in dwelling occupancies unless the equipment is designed so that no live parts are exposed during the insertion or removal of lamps.

**30-708 Thermal Protection.** Lighting fixtures which employ fluorescent lamps shall have thermally protected ballasts except where the ballasts are of simple reactance type.

### **30-710 Auxiliary Equipment**

(1) Reactors, capacitors, resistors, and auxiliary equipment shall be:

- (a) Enclosed within the lighting fixture;
- (b) Enclosed within an accessible, permanently installed, metal cabinet where remote from the luminaire; or
- (c) Acceptable for use without an additional enclosure.

(2) Adequate provision shall be made for the dissipation of heat from enclosed auxiliary equipment and the conductors supplying the auxiliary equipment.

(3) The metal cabinet, if not part of the luminaire, shall be installed as close as possible to the luminaire.

(4) Where display cases are not permanently installed, no part of a secondary circuit shall be included in more than one case.

(5) Where discharge lamp ballasts are located remote from the lighting units, they shall be connected by:

- (a) Conductors of the fixture wire type as listed in Table 11 or building wire type as listed in Table 19:
  - (i) Having a voltage rating not less than 600 volts;
  - (ii) Having a temperature rating not less than 90°C; and
  - (iii) Suitable for pulling into a raceway; or
- (b) A cable having a temperature rating of not less than 90°C as permitted by other Sections of the Code.

### **30-712 Control**

(1) The luminaires and lamp installations shall be controlled by a switch, circuit breaker or contactor.

(2) Where a switch is used, it shall:

- (a) Have a current rating of not less than twice the current rating of the lamps or transformers;
- (b) Be of a type approved with the assembly;
- (c) Be a manually-operated general-use alternating-current switch complying with Rule 14-510;
- (d) Be a switch having an "ac/dc" rating and an "F" rating complying with Rule 14-508; or
- (e) Be a manually operated general use 347 volt ac switch complying with Rule 14-512.

(3) Where a circuit breaker only is used, it shall comply with the requirements of Rule 14-104, and in the case of 15 amperes and 20 amperes branch circuits at 347 volts and less supplying fluorescent luminaires, the circuit breaker shall be suitable for such switching duty and shall be marked "SWD".

(4) Where a contactor is used, it shall have a current rating of not less than twice the current rating of the lamps or transformers unless the contactor is approved as suitable for this use and so marked.

### **30-714 Branch Circuit Capacity**

(1) Where lighting branch circuits supply luminaires employing ballasts, transformers, or auto-transformers, the load on the branch circuits shall be computed on the basis of the total amperes of the units and not on the watts of the lamps.

(2) The aggregate capacity of fixtures connected to a lighting branch circuit shall not exceed 80 per cent of the branch circuit overcurrent protection.

**30-715 Overcurrent Protection.** In a fluorescent or incandescent lighting circuit protected by overcurrent devices set at 20 amperes, No. 14 AWG copper tap conductors are permitted to supply a single luminaire provided the tap conductors:

- (a) Do not exceed 3 metres in length;
- (b) Have a conductor insulation rating for at least 75 degrees Celsius; and
- (c) Are in non-ventilated raceways where not protected by an enclosure.

**30-716 Overcurrent Protection of High-Intensity Discharge Lighting Equipment.** Overcurrent protection shall not be provided in a high-intensity discharge luminaire or separate ballast box unless the combination is approved for the purpose and so marked.

### **Electric-Discharge Lighting Systems Operating at More Than 1,000 Volts**

**30-800 Rules for Discharge Lighting Systems, More than 1,000 Volts.** Rules 30-802 to 30-822 apply to electrical equipment used with electric-discharge lighting system operating at more than 1,000 volts.

**30-802 Voltages, Dwelling Units.** Where equipment has an open-circuit voltage of more than 1000 volts, it shall not be installed in dwelling units.

### **30-804 Control**

(1) The luminaires and lamp installations shall be controlled singly or in groups by an externally operated switch or circuit breaker which opens all ungrounded primary conductors.

(2) The switch or circuit breaker shall be:

(a) Installed within sight of the fixtures or lamps; or

(b) Provided with a means for locking it in the open position.

(3) The switch shall:

(a) Have a current rating of not less than twice the current rating of the transformer or transformers controlled by it;

(b) Be of a type approved for the purpose;

(c) Be a manually-operated general-use alternating-current switch complying with Rule 14-510;

(d) Be a switch having an "ac/dc" rating and an "F" rating complying with Rule 14-508; or

(e) Be a manually operated general use 347 volt ac switch complying with Rule 14-512.

(4) The circuit breaker shall comply with the requirements of Rule 14-104.

### **30-806 Transformer Rating**

(1) Every transformer and ballast shall have a secondary open-circuit voltage of not more than 15,000 volts, except that every transformer and ballast of the open-core-and-coil type shall have a secondary open-circuit voltage of not more than 7,500 volts.

(2) The secondary current rating shall be not more than 240 milliamperes, except that, where the secondary open-circuit voltage exceeds 7,500 volts, the secondary current rating shall not be more than 120 milliamperes.

**30-808 Liquid-Filled Transformers.** Transformers of the liquid-filled type shall not be used unless they are filled with a nonflammable liquid.

### **30-810 Transformers, Secondary Connection**

(1) The high-voltage windings of transformers operating at more than 1,000 volts shall not be connected in series or in parallel, but where each of two transformers has one end of its high-voltage winding grounded and connected to the enclosure, the high-voltage windings may be connected in series to form the equivalent of a mid-point grounded transformer.

(2) The grounded end of each high-voltage winding shall be connected by an insulated stranded copper conductor not smaller than No. 14 AWG.

### **30-812 Location of Transformers**

(1) Transformers operating at more than 1,000 volts shall be accessible for servicing or replacement.

(2) The transformers shall be installed as near to the lamps as practicable.

(3) The transformers shall be located so that adjacent combustible materials are not subjected to temperatures in excess of 90°C.

### **30-814 Wiring Method**

(1) The secondary conductors shall be luminous-tube-sign cable approved for the purpose and for the voltage of the circuit.

(2) Not more than a total of 6 metres of cable shall be run in metal raceway from a transformer.

(3) Not more than a total of 16 metres of cable shall be run in a non-metallic raceway from a transformer.

(4) The conductors shall be installed in conformity with Section 34.

**30-816 Transformer Loading.** Where the lamps are connected to a transformer, they shall be of such length and characteristics as not to cause a condition of continuous over-voltage on the transformer.

### **30-818 Lamp Supports**

(1) Lamps operating at more than 1,000 volts shall be supported in the manner required by Section 34.

(2) The lamps shall not be installed where they are exposed to mechanical injury.

### **30-820 Lamp Terminals and Lampholders**

(1) Parts which must be removed for lamp replacement shall be hinged or fastened by an approved means.

(2) Lamp terminals and lampholders shall be designed so that the tubing can be replaced with the minimum exposure of bare live parts during re-lamping.

(3) The designs referred to in Subrule (2) need not afford protection against "Space Discharge" shocks as tubes are replaced by trained maintenance staff.

**30-822 Marking.** Every fixture and every secondary circuit of tubing having an open-circuit voltage of more than 1,000 volts shall be clearly and legibly marked in letters and figures not less than one inch high with the words "CAUTION . . . VOLTS", the rated open-circuit voltage being inserted in figures, in the space between the words.

## **OUTDOOR LIGHTING EQUIPMENT**

### **General**

#### **30-900 General**

(1) Rules 30-900 to 30-1128 apply to temporary or permanent outdoor lighting equipment, for either decorative lighting or illumination of outdoor areas,

where protection of the system and safety from shock hazard is the main concern and the fire hazard is of secondary nature.

(2) Rules 30-900 to 30-1128 cover only that portion of the installation which is outside of buildings.

(3) Luminaires which employ fluorescent lamps shall have thermally protected ballasts except where the ballasts are of the simple reactance type.

### 30-902 Polarization of Luminaire

(1) A luminaire shall be wired so that all screw-shells of its lampholders are connected to the same luminaire conductor or terminal, which shall be connected either to the grounded circuit conductor, if one exists, or to ground, by a separate connection, providing that an isolating (2-winding) type transformer or ballast is used, but if no grounded circuit conductor exists the lampholder shall be supplied from an isolating (2-winding) type transformer or ballast with the screw-shells separately connected to ground.

(2) Notwithstanding Subrule (1), where a high-intensity discharge lamp ballast supplies two lamps in series, the screw-shell of one lampholder need not be at ground potential, provided that removal of its lamp isolates the screw-shell.

(3) Notwithstanding Subrule (1), where an approved luminaire incorporating a guard or other means to prevent accidental contact with bare live parts while inserting or removing the lamps is provided:

- (a) Connection of the screw-shell to the grounded non-current-carrying metal parts of the luminaire is not required; and
- (b) An isolating (2-winding) transformer or ballast is not required.

**30-904 Overcurrent Protection of High-Intensity Discharge Lighting Equipment.** Overcurrent protection shall not be provided in a high-intensity discharge luminaire or separate ballast box unless the combination is approved for the purpose and so marked.

### Permanent Outdoor Floodlighting Installations

#### 30-1000 General

(1) Rules 30-1002 to 30-1036 apply to permanent, outdoor installations of floodlights of 300 watts or larger, using mogul-base lampholders, where the floodlights are mounted on poles or towers.

(2) These Rules are based on the understanding that authorized persons may replace lamps but all other maintenance will be done by qualified persons.

#### 30-1002 Service Equipment

(1) Service equipment shall comply with Section 6

for low-voltage installations, and with Section 36 for high-voltage installations.

(2) Where indoor equipment is installed outdoors, it shall be installed in an acceptable weatherproof enclosure.

### 30-1004 Wiring Methods, Underground

(1) Wiring underground shall be run:

- (a) Where acceptable, in rigid steel or rigid aluminum conduit;
- (b) In non-metallic underground conduit;
- (c) As lead-sheathed armoured cable, mineral-insulated cable, or aluminum-sheathed cable; or
- (d) As conductors or cable assemblies acceptable for direct earth burial as indicated in Table 19 or, by special permission, for service entrance below ground as indicated in Table 19.

(2) Conductors in conduit shall be of types indicated in Table 19 as being suitable for use in wet locations.

(3) Conductors buried directly in the earth shall be installed in accordance with Rule 12-012.

(4) Suitable corrosion-resistant protection shall be provided for aluminum-sheathed cable and aluminum conduit; and also for mineral-insulated cable, if used where materials coming in contact with the cable may have a deteriorating effect on the sheath.

### 30-1006 Wiring Methods, on Poles

(1) All electrical equipment on the pole shall be controlled by a switch which can be locked in the "Off" position, and each pole shall be provided with a prominent sign warning against climbing the pole until the switch is "Off" unless all conductors and live parts other than those used for pole top wiring are guarded against accidental contact in one of the following ways:

- (a) The conductors are run in rigid or flexible metal conduit, as mineral-insulated cable, or up the centre of steel, aluminum or hollow concrete poles;
- (b) The conductors and live parts are kept at least 1 metre from the climbing ladder or climbing steps;
- (c) Barriers are provided between conductors or live parts, or both, and the climbing ladder so as to prevent likelihood of contact by the climber.

(2) Conductors run up the centre of poles shall be supported so as to prevent injury to the conductors inside the pole and as to prevent undue strain on the conductors where they leave the pole.

(3) Where vertical conductors, cables and grounding conductors are within 2.5 metres of locations accessible to unauthorized persons, they shall be provided with a covering which gives acceptable mechanical protection.

(4) On wood poles, for grounding conductors from lighting arresters, the protective covering specified in

Subrule (3) shall be of wood moulding or other insulating material giving equivalent protection.

### **30-1008 Pole Top Distribution Panelboards.**

Where there is more than one branch circuit on a pole top, the feeders shall be run to a distribution panelboard which shall be either weatherproof or installed in a weatherproof enclosure, except that the panelboard may be omitted where there are only two branch circuits on a 120/240-volt circuit with common neutral and where there are only three branch circuits on a 120/208-volt, 3-phase, 4-wire circuit.

**30-1010 Overcurrent Protection of Pole Top Branch Circuits.** Pole top branch circuits shall have overcurrent protection rated or set at no more than 100 amperes.

**30-1012 Pole Top Branch Circuit Wiring.** Pole top branch circuit wiring, exclusive of leads approved with the floodlights to which they are connected, shall be run:

- (a) As lead-sheathed cable or rubber- or thermoplastic-insulated moisture-resistant types of conductors installed in rigid conduit;
- (b) As mineral-insulated cable or aluminum-sheathed cable; or
- (c) As insulated or uninsulated exposed wiring if such wiring is lawful under Rule 2-030 and,
  - (i) The wiring is supported on suitable insulators;
  - (ii) The wiring is controlled by a switch which can be locked in the "Off" position; and
  - (iii) The pole is provided with a prominent sign warning against climbing it until the switch is "Off".

### **30-1014 Joints**

(1) Open taps and joints may be made in pole top open wiring provided the joint or tap is given insulation equivalent to that on the conductors joined.

(2) There shall be no joints or splices concealed within conduit.

**30-1016 Location of Transformers.** Transformers shall comply with the following:

- (a) If mounted on floodlight poles, all live parts shall be guarded as required by Rule 30-1006;
- (b) If mounted on poles, the bottom of the transformer shall be at least 5 metres above locations accessible to unauthorized persons;
- (c) If located on platforms on the ground, they shall be completely enclosed so as to prevent access by unauthorized persons or they shall be surrounded by a protecting fence which shall comply with the requirements of Rules 26-300 to 26-324.

**30-1018 Overcurrent Protection of Transformers.** Overcurrent protection of transformers shall be in accordance with Section 26.

**30-1020 Switching of Floodlights.** Switches controlling floodlights shall comply with the following:

- (a) A switch on the primary side of a transformer shall be capable of making and interrupting the full load on the transformer;
- (b) Switches controlling floodlights from the secondary side of a transformer shall have a current rating not less than 125 per cent of the current requirements of the floodlights controlled;
- (c) Switches shall be capable of being operated without exposing the operator to danger of contact with live parts, either by remote operation or by proper guarding;
- (d) Switches shall be capable of being locked in the "Off" position.

**30-1022 Grounding of Circuits at 300 Volts or Less.** Circuits operating at potentials of 300 volts or less between conductors shall be grounded.

**30-1024 Grounding of Circuits Above 300 Volts.** Circuits operating at potentials above 300 volts may be grounded provided the installation is acceptable and does not violate any applicable code or standard under a rule or by-law of the supply authority concerning the grounding of permanent outdoor floodlighting installations.

**30-1026 Material for Grounding Conductors.** Grounding conductors shall be of material as specified in Rules 10-802 and 10-804.

### **30-1028 Grounding Methods**

(1) A grounded secondary circuit shall be grounded in accordance with Section 10.

(2) The secondary grounded circuit conductor may be grounded by an interconnection to the primary grounded circuit conductor provided:

- (a) The primary is grounded at the transformers; and
- (b) Interconnection is made only at the transformer.

### **30-1030 Grounding and Bonding of Non-Current-Carrying Metal Parts**

(1) All non-current-carrying metal parts within 2.5 metres of locations accessible to unauthorized persons shall be grounded.

(2) Except for isolated metal parts such as cross-arm braces, bolts, insulator pins and the like, non-current-carrying metal parts of electrical equipment at the pole top shall be bonded together and, if within reach of any grounded metal, shall be grounded.

(3) The size of grounding or bonding conductor shall be as specified in Rule 10-812.

**30-1032 Installation of Lightning Arresters.** Where lightning arresters are installed, they shall be in accordance with Rule 10-1000 and 10-1002 with the addi-

tion that a common grounding conductor and common electrode system may be used for grounding primary and secondary neutrals and lightning arresters.

**30-1034 Types of Equipment Permitted.** Floodlights, secondary wiring, conduit, conduit fittings, and distribution panelboards shall be approved, and other electrical pole top equipment shall be acceptable types.

**30-1036 Climbing Steps.** Where it is necessary to climb the pole to replace lamps, permanent climbing steps shall be provided and the lowest permanent step shall be not less than 3.7 metres above locations accessible to unauthorized persons.

### **Exposed Wiring For Permanent Outdoor Lighting**

**30-1100 General.** Rules 30-1102 to 30-1122 apply to exposed wiring for permanent outdoor lighting other than floodlighting where the circuits are run between buildings, between poles, or between buildings and poles.

**30-1102 Conductors.** Conductors shall be stranded, not less than No. 12 AWG, and shall be:

- (a) Of a type suitable for exposed wiring where exposed to the weather as specified in Table 19;
- (b) Of the rubber-insulated type suitable for exposed wiring where exposed to the weather as specified in Table 19, when lampholders of a type which puncture the insulation and make contact with the conductors are used; or
- (c) Of the moisture-resistant rubber-insulated type suitable for exposed wiring where exposed to the weather as specified in Table 19, if cabled together and used with messenger cables.

### **30-1104 Use of Insulators**

(1) Conductors shall be securely attached to insulators at each end of the run if a messenger is not used and at intermediate points of support if there are any.

(2) Insulators at the ends of runs shall be of the strain type unless the conductors are supported by messenger cables.

(3) Split knobs shall not be used.

**30-1106 Height of Conductors.** Conductors supplying lamps in parking lots, used-car lots, drive-in establishments, and similar commercial areas shall be maintained such that the conductors or the bottom of a lamp fed from the conductors, whichever is lower, shall have a clearance of not less than 4 metres above grade at any point in a run, except that where a driveway or thoroughfare exists this clearance shall be not less than 5 metres.

**30-1108 Spacing from Combustible Material.** Conductors and lampholders shall be maintained at a

distance of not less than 1 metre from any combustible material except for branch circuit conductors at the point of connection to buildings or poles.

**30-1110 Spacing of Conductors.** Conductors shall be separated at least 300 millimetres from each other by means of insulating spacers at intervals of not more than 4.5 metres unless the conductors are secured to and supported by messenger cables.

### **30-1112 Lampholders**

(1) Lampholders shall be of weatherproof types with moulded insulating bodies.

(2) Lampholders shall be of types having either:

- (a) Permanently attached leads; or
- (b) Terminals of a type which puncture the insulation and make contact with the conductors.

(3) Lampholders having permanently attached leads shall have the connections to the circuit wires staggered where a cabled assembly is used.

**30-1114 Protection of Lampholders.** Lampholders may be connected to branch circuits protected by overcurrent devices rated or set at not more than 30 amperes provided that the lampholders are:

- (a) For incandescent lamps;
- (b) Of the unswitched type; and
- (c) Rated not less than 660 watts.

### **30-1116 Use of Messenger Cables**

(1) Messenger cables shall be used to support the conductors:

- (a) If lampholders having permanently attached leads are used, and the span exceeds 12 metres; and
- (b) In all cases where lampholders having terminals which puncture the insulation are used.

(2) Messenger cable shall be securely attached at each end of the run and shall be grounded in accordance with Section 10.

(3) Conductors shall be permanently attached to the messenger in an acceptable manner.

### **30-1118 Construction of Messenger Cables**

(1) Messenger cables shall be of galvanized steel, copper-coated steel, or stainless steel and shall be of stranded construction with not less than seven strands.

(2) Galvanized steel shall have a coating of not less than 0.15 ounces per square foot.

(3) The effective ultimate strength of a messenger cable shall be not less than three times the calculated maximum working load, including loading due to ice loads and wind loads, and in no case shall the individual strands be less than:

- (a) 0.046 inch in diameter in the case of galvanized or copper-coated wire; or
- (b) 0.0438 inch in diameter in the case of stainless steel wire.

**30-1120 Maximum Size of Lamps.** The size of lamps used shall not be in excess of that for which the particular lampholder is approved and in no case more than 150 W.

### 30-1122 Branch Circuit Loading and Protection

(1) Branch circuits shall be protected by overcurrent devices rated at not more than 30 A.

(2) The total load on a branch circuit shall not exceed 80% of the rating or setting of the overcurrent devices.

## SECTION 32—FIRE ALARM SYSTEMS AND FIRE PUMPS

### 32-000 Scope

(1) This Section applies to the installation of electrical local fire alarm systems emergency voice communication systems and fire pumps in buildings required to have such equipment by the Ontario Building Code.

(2) The requirements of this Section are supplementary to, or amendatory of, the general requirements of this Code.

## FIRE ALARM SYSTEMS

### 32-100 Conductors

(1) Conductors shall be of copper and shall have an ampacity adequate to carry the maximum current that can be provided by the circuit.

(2) Stranded conductors with more than 7 strands shall be bunch-tinned or terminated in compression connectors.

(3) Conductors shall have an insulation rating not less than 300 volts, and shall be not smaller than:

- (a) No. 16 AWG for individual conductors pulled into raceways;
- (b) No. 19 AWG for individual conductors laid in raceways;
- (c) No. 19 AWG for an integral assembly of 2 or more conductors; and
- (d) No. 22 AWG for an integral assembly of 4 or more conductors.

(4) Conductors shall be suitable for the purpose of the type listed in Table 19 except individual conductors smaller than No. 14 AWG copper installed in a

raceway shall be equipment wire of the type listed in Table 11.

### 32-102 Wiring Method

(1) All conductors of a fire alarm system and emergency voice communication system shall be:

- (a) Installed in metal raceway of the totally enclosed type;
- (b) Incorporated in a cable, having a metal armour or sheath;
- (c) Installed in a nonmetallic raceway of the totally enclosed type, where the raceway is embedded in at least 50 millimetres of masonry or poured concrete or installed underground; or
- (d) Installed in electrical nonmetallic tubing where embedded in at least 50 mm of masonry or poured concrete.

(2) Notwithstanding Subrule (1), conductors installed in buildings of combustible construction in accordance with Rules 12-506 to 12-520, are permitted to be;

- (a) Non-metallic sheathed cables; or
- (b) Fire alarm and signal cable.

(3) The conductors shall be installed so as to be entirely independent of all other wiring and shall not enter a fixture, raceway, box, or enclosure occupied by other wiring, except as may be necessary for connection to:

- (a) The point of supply;
- (b) A signal or emergency voice communication system;
- (c) An ancillary device; or
- (d) A communication circuit.

(4) All wiring of a communication system connected to a fire alarm system to extend the fire alarm system beyond the building, shall conform to the applicable Rules of Section 60 of CSA Standard C22.1-1990.

(5) All conductors contained in the same raceway or cable shall be insulated for the highest voltage in the raceway or cable.

(6) Notwithstanding Subrule (3), conductors of a communication system intended for life safety use and used in conjunction with the fire alarm system, may be installed in the same raceway, fixture, box or enclosure as the fire alarm system conductors.

### 32-104 Equipment Bonding

- (1) Exposed noncurrent-carrying metal parts of

electrical equipment including outlet boxes, conductor enclosures, raceways and cabinets shall be bonded to ground in accordance with Section 10.

(2) Where a nonmetallic wiring system is used, a bonding conductor shall be incorporated in each cable and shall be size in accordance with Rule 10-814(1).

**32-106 Electrical Supervision.** Wiring to dual terminals and dual splice leads shall be independently terminated to each terminal or splice lead.

### 32-108 Current Supply

(1) A fire alarm system shall be supplied by a separate circuit connected as close as practicable, without violating other rules of this Code to:

- (a) The load terminals on the main service disconnect;
- (b) The secondary terminals of the transformer, where transformation is necessary in order to supply a utilization voltage required by the fire alarm system; or
- (c) The terminals of a transfer switch, where the fire alarm system receives emergency power from an emergency power source which also supplies other electrical equipment.

(2) Overcurrent devices and disconnecting means for the separate circuit supplying a fire alarm system shall be clearly identified in a permanent, conspicuous and legible manner as a fire alarm system, and the disconnecting means shall be coloured red and capable of being locked in the on position.

**32-110 Installation of Smoke Alarm Devices in Dwelling Units.** The following requirements apply to the installation of smoke alarms in dwelling units.

- (a) Except where prohibited by Rule 26-704 and on circuits where ground fault circuit interrupter protection is provided, smoke alarm devices are permitted to be installed in any lighting and receptacle branch circuit in a dwelling unit;
- (b) There shall be no disconnecting means between the smoke alarm device and the overcurrent device for the branch circuit;
- (c) The wiring method for the smoke alarm device, including any interconnection of units and their associated equipment, shall be in accordance with Rules 32-100 and 32-102;
- (d) Notwithstanding Paragraph (c), where a smoke alarm circuit utilizes a Class 2 power supply for the interconnection of the smoke alarms and their associated equipment, Class 2 wiring methods are permitted in buildings of combustible construction, provided that the conductors are installed in accordance with Rules 12-506 to 12-524 inclusive.

## FIRE PUMPS

**32-200 Conductors.** Conductors shall be of copper and shall have the ampacity in accordance with the applicable requirements of Sections 4 and 28.

**32-202 Wiring Method.** All conductors to fire pump equipment shall be:

- (a) Installed in metal raceways of the totally enclosed type; or
- (b) Incorporated in a cable, having a metal armour or sheath, of a type listed in Table 19.

### 32-204 Supply Service

(1) Notwithstanding Rule 6-102(1), two supply services of the same voltage and characteristics are permitted to be run to a building by one supply authority where a separate supply service for fire pump equipment is required by the Ontario Building Code.

(2) Where a separate supply service for fire pump equipment is installed, each service box shall be marked in accordance with Rule 6-214.

### 32-206 Consumer's Service for Fire Pumps

(1) Notwithstanding Rule 6-200, where fire pump equipment is connected to a consumer's service a separate service box for the fire pump equipment is permitted.

(2) A service box for fire pump equipment is permitted to be located remote from other service boxes.

(3) A service box for fire pump equipment shall be labelled in a conspicuous, legible and permanent manner with the words "FIRE PUMP".

### 32-208 Overcurrent Protection

(1) The rating or setting of the overcurrent protection for services, feeders and branch circuits are permitted to be selected to carry locked rotor current of the motor(s) plus the rated current of associated equipment on the circuit continuously and the instantaneous short circuit characteristic is permitted to be selected or set at a minimum of the normal load current of the associated equipment on the circuit plus 12 times the full load current of the motor(s).

(2) Where the locked rotor current is not marked on a motor, 600 per cent of the rated current of the motor shall be considered to be the locked rotor current.

**32-210 Overload and Overheating Protection.** The branch circuit conductors and control conductors or equipment of a fire pump do not require overload or overheating protection and are permitted to be protected by the motor branch circuit overcurrent device(s).

**32-212 Ground Fault Protection.** Ground fault protection shall not be installed in a fire pump circuit.

**SECTION 34—SIGNS AND OUTLINE LIGHTING****34-000 Scope**

(1) This Section applies to signs and outline lighting wherein the sources of light are:

- (a) Incandescent lamps;
- (b) Fluorescent lamps;
- (c) High-voltage luminous discharge tubes, including neon tubes; and
- (d) High-intensity discharge lamps.

(2) The requirements of this Section are supplementary to or amendatory of the general requirements of this Code.

(3) The word "sign" when used throughout this Section includes those of the through-wall type.

**General Requirements**

**34-010 Construction.** Signs and outline lighting equipment manufactured wholly or in part in the field shall conform in construction to the requirements of CSA Standard C22.2 No. 2-1956, Electric Signs.

**34-012 Disconnecting Means.** Each outline lighting installation, and each sign other than the portable type, shall be provided with an externally operable disconnecting means which shall:

- (a) Open all ungrounded conductors;
- (b) Be suitable for conditions of installation such as exposure to weather; and
- (c) Be integral with the sign or outline lighting.

**34-014 Rating of Disconnecting Means and Control Devices.** Switches, flashers and similar devices controlling transformers and ballasts shall be either of a type approved for the purpose, or have a current rating not less than twice the current rating of the transformer or ballasts.

**34-016 Thermal Protection.** Ballasts of the thermally-protected type shall be required for all signs and outline lighting which employ fluorescent lamps except where the ballasts are of the simple reactance type.

**34-018 Branch Circuit Capacity.** Circuits shall be arranged so that the load imposed by lamps and transformers shall not exceed 80 per cent of the branch circuit overcurrent protection.

**34-020 Location**

(1) Signs and outline lighting shall be located so that:

- (a) Any person working thereon is not likely to come into contact with overhead conductors;

(b) No part of the sign or its support will interfere with normal work operations performed on electrical and communication utility lines;

(c) No part of the sign or its support is in such proximity to overhead conductors as to constitute a hazard; and

(d) Except as provided for in Subrule (2), no part of the sign, other than its support, is less than 2.2 metres above grade.

(2) Notwithstanding Subrule (1) (d) free standing signs may be mounted with electrical components less than 2.2 metres above grade if mechanical protection is provided to prevent persons or vehicles from coming into contact with the electrical components of the sign.

**34-022 Supporting Means**

(1) Poles, masts, standards or devices designed as supports that are for use as electrical raceways, shall be approved for the purpose.

(2) The devices referred to in Subrule (1) when used for mechanical support only, must be suitable for the purpose.

**34-024 Bonding.** All conductive non-current-carrying parts of a sign or outline lighting installation shall be bonded to ground in accordance with the requirements of Section 10, except for conductive parts of letters attached to the building and illuminated from the rear.

**34-026 Protection of Sign Leads.** Where sign leads pass through the walls or partitions of the sign structure, they shall be protected by incombustible absorption-resisting bushings.

**34-028 Installation of Conductors.** Conductors for signs and outline lighting shall be installed in accordance with the requirements of Section 12.

**34-030 Fuseholders and Flashers.** Fuseholders, flashers, and other similar devices shall be enclosed in metal, and shall be accessible without the necessity of removing obstructions or otherwise dismantling the sign.

**High-Voltage Luminous-Discharge-Tube Signs and Outline Lighting****34-200 Enclosures**

(1) Enclosures for transformers, switches, timers, relays, sequencing units and other similar devices shall be of metal or of heat and moisture-resistant non-combustible material.

(2) The enclosure in Subrule (1) shall be constructed to prevent the emission of flames or any burning or ignited material.

(3) Openings for ventilation shall be arranged to

comply with the requirements of Subrule (2) and shall be at least 100 millimetres from live parts.

(4) Metal enclosures shall be not less than No. 22 MSG.

(5) At the point where it is intended that the supply connections be made, the enclosure shall be of not less than No. 16 MSG.

(6) Each enclosure housing a transformer shall be marked in accordance with the requirements of Section 2.

**34-202 Protection of Uninsulated Parts.** Doors or covers accessible to the general public and which give access to uninsulated parts of indoor signs or outline lighting, shall be either provided with interlock switches which on the opening of the doors or covers disconnect the primary circuit, or shall be fastened so that the use of other than ordinary tools will be necessary to open them.

#### **34-204 Transformer Voltage**

(1) The rated secondary open circuit voltage of transformers shall not exceed 15,000 volts.

(2) In end-grounded transformers, rated secondary open circuit voltage shall not exceed 7,500 volts.

**34-206 Open Core-and-Coil Type Transformers.** Open core-and-coil type transformers shall only be used indoors.

**34-208 Transformers Used Outdoors.** Transformers used outdoors shall be of the weatherproof type or shall be enclosed in the sign body or in a separate weatherproof box.

#### **34-210 Transformer Installation**

(1) Transformers shall be installed in such locations that they are accessible and capable of being removed and replaced.

(2) Transformers shall be supported by attachment to the enclosure in which they are housed by at least two studs or bolts.

#### **34-212 Transformer Overcurrent Protection**

(1) Each transformer shall be protected by an overcurrent device except that two or more transformers may be protected by one overcurrent device if their combined load does not exceed 12 amperes.

(2) Where additional overcurrent devices for the individual protection of transformers in signs are used, they shall be placed either inside or outside the sign structure.

(3) Where exposed to the weather, overcurrent devices protecting transformers shall be of the weatherproof type.

#### **34-214 Transformer Secondary Connection**

(1) The high-voltage windings of transformers shall not be connected in parallel.

(2) The high-voltage windings of transformers shall not be connected in series, except that two transformers may have one end of each of their high-voltage windings grounded and connected in series to form the equivalent of a midpoint-grounded transformer, provided that the grounded ends of the high-voltage windings are connected by an insulated copper conductor not smaller than No. 14 AWG.

#### **34-216 High-Voltage Wiring Methods**

(1) High-voltage conductors shall be installed in:

- (a) Transformer enclosures;
- (b) Sign enclosures;
- (c) Flexible metallic conduit;
- (d) Rigid conduit; or
- (e) Other types of raceways except for surface raceways.

(2) High-voltage conductors may be run from the ends of gas tubes to the grounded midpoint of transformers which have terminals at the midpoint.

(3) The connections between the high-voltage terminals of the transformers of the midpoint-grounded type and the line ends of gas tubes shall be as short as possible.

(4) There shall be no sharp bends in high-voltage conductors.

(5) All high-voltage conductors installed inside metal sign enclosures shall be of the types permitted by Table 19.

**34-218 High-Voltage Conductors in Show Windows and Similar Locations.** Notwithstanding Rule 34-216, if high-voltage conductors used with signs, hang freely in the air and are not enclosed in raceways, as in show windows and similar locations, they shall be:

- (a) Located away from the combustible material;
- (b) Located so as to be free from mechanical injury; and
- (c) Enclosed in noncombustible insulating sleeving.

#### **34-220 Length of Cable from Transformers**

(1) No cable in a metal raceway from a transformer to other parts of the sign shall be longer than 6 metres.

(2) No cable in a nonmetallic raceway from a transformer to other parts of the sign shall be longer than 16 metres.

**34-222 Connections of High-Voltage Conductors**

(1) Connections of high-voltage conductors to neon tubing outside the building or structure shall be made by means of:

- (a) An approved electrode receptacle;
- (b) A direct connection to the neon tubing outside the building or structure wall providing that not more than 100 millimetres of high-voltage wiring extends beyond the end of the raceway; or
- (c) Any other approved method.

(2) Under Subrule (1) (b), the portion of the high-voltage wiring beyond the raceway shall be enclosed in an acceptable insulating sleeve from a point 50 millimetres within the raceway up to and including the connection to the neon tubing and shall be retained in place.

(3) The connection in Subrule (1) (b) shall be electrically secure and provided with acceptable wrapping of insulating tape.

**34-224 Bonding of Metal Electrode Assembly Housing.** Notwithstanding Rule 10-510(3), where flexible metal conduit is used to provide mechanical protection for the high voltage conductor run between an electrode receptacle and a transformer and from one electrode receptacle to another electrode assembly, the flexible metal conduit is permitted to serve as the bonding means for the metal electrode assembly housing if the flexible metal conduit terminates in a connector that ensures a positive bonding connection.

## SECTION 36—HIGH-VOLTAGE INSTALLATIONS

### General

**36-000 Scope**

(1) This Section applies to installations operating at voltages in excess of 750 volts.

(2) The supply authority must be consulted before proceeding with any such installation in compliance with any applicable code or standard under a rule or by-law of the supply authority concerning such consultation.

(3) This Section is additional to the requirements of this Code for installations at potentials of 750 volts or less.

(4) This Section does not affect construction details of factory fabricated assemblies approved under Part II of this Code.

**36-002 Special Terminology.** In this Section the following definitions apply:

- (a) "Station" means an assemblage of equipment at one place, including any necessary housing, for the conversion or transformation of electrical energy and for connection between two or more circuits;
- (b) "Maximum ground fault current" means the magnitude of the greatest fault current that may flow between the grounding grid and the surrounding earth during the life of the installation;
- (c) "Potential rise of ground grid" means the product of the ground grid resistance and the maximum ground fault current that flows between the station ground grid and the remote earth;
- (d) "Touch voltage" means the voltage difference between a grounded metallic structure and a point on the earth's surface separated by a distance equal to normal maximum horizontal reach;
- (e) "Step voltage" means the voltage difference between two points on the earth's surface separated by a distance of one pace, assumed to be 1 metre, in the direction of maximum voltage gradient;
- (f) "Ground grid conductor" means the horizontally buried conductor used for interconnecting ground rods or similar equipment which form the station ground electrode;
- (g) "Boundary fence" means a fence forming the boundary of a property or area, but not part of a station fence enclosure.

**36-004 Guarding.** Live parts of electrical equipment shall be accessible to authorized persons only.

**36-006 Warning Notices**

(1) A permanent legible warning notice carrying the wording "DANGER — HIGH VOLTAGE" or "DANGER..... VOLTS" shall be placed in a conspicuous position:

- (a) At electrical equipment vaults, electrical equipment rooms, areas or enclosures;
- (b) On all high-voltage conduits and cables at points of access to conductors; and
- (c) On all cable trays containing high-voltage conductors with the maximum spacing of warning notices not to exceed 10 metres.

(2) Permanent legible signs shall be installed at isolating equipment warning against operating it while carrying current, unless the equipment is interlocked so that it cannot be operated under load.

(3) Suitable warning signs shall be erected in a conspicuous place adjacent to fuses, warning operators not to replace fuses while the supply circuit is energized.

(4) In addition to the provisions of Subrules (1), (2) and (3), metal enclosed switchgear and equipment shall bear the following external markings:

(a) With each installation of a metal-enclosed assembly, there shall be provided a permanently legible diagram giving the following information:

- (i) A block outline defining each cubicle or cell, all to a minimum scale of 1 to 10 but the drawing containing the block outline shall not be smaller than approximately 450 by 550 millimetres;
  - (ii) A single line diagram overlaid on the block outline indicating the physical, where possible, and electrical location of the high voltage components in the power circuit;
  - (iii) All possible sources of voltage to the installation under normal or emergency conditions and the locations of devices for isolating such power supplies; and
  - (iv) Interlocks and their functions;
- (b) Each complete cell or cubicle on the diagram shall be suitably identified and cross referenced to its counterpart in the metal-enclosed assembly which shall bear the identifying mark both front and rear applied to non-removable portions of the unit and if the marking will be obscured by a removable coverplate the marking shall be repeated on the coverplate;
- (c) The diagram shall be mounted conspicuously on or adjacent to the metal-enclosed assembly and shall be protected from damage by being framed under glass or by some other suitable means;
- (d) On all cells in which the supply is from a source external to the assembly, there shall be installed on panels which when opened make high voltage components accessible, conspicuous warning signs having the following wording:
- (i) Where a panel gives access to parts which cannot be de-energized and visibly isolated except by the Supply Authority: "WARNING—HIGH VOLTAGE—DO NOT REMOVE UNLESS PERMITTED BY SUPPLY AUTHORITY" or "COMPARTMENT FOR SUPPLY AUTHORITY USE ONLY", or
  - (ii) Where a panel gives access to parts which can be de-energized and visibly isolated by the owner: "WARNING—HIGH VOLTAGE—DO NOT ENTER THIS COMPARTMENT UNLESS VISIBLY ISOLATED BY DISCONNECTING DEVICE (.....)"

(the designation or location of disconnect device to be inserted in blank space); and

(e) Notwithstanding Paragraph (d), where the equipment consists solely of a single cubicle or metal-enclosed unit substation containing only one set of high voltage switching devices, diagrams are not required but conspicuous warning signs shall be installed on panels which when opened make high voltage components accessible:

- (i) As in (d) (i) where the supply can be disconnected only by a Supply Authority; or
- (ii) As in (d) (ii) where the owner is in control of the supply into the equipment.

### Wiring Methods

#### 36-100 Conductors

(1) Bare conductors or insulated conductors not enclosed in grounded metal shall be used only:

- (a) outdoors;
- (b) in electrical equipment vaults constructed in accordance with Rules 26-350 to 26-356; or
- (c) in cable tray in accordance with Subrule (2)(d).

(2) Except as permitted in paragraphs (1)(b), and (1)(c) of this rule conductors used indoors or outdoors and attached to buildings shall be:

- (a) installed in metal conduit;
- (b) installed in metal enclosed busway;
- (c) cables having a continuous metal sheath or of the interlocking metal armour type; or
- (d) Type TC tray cable installed in cable tray in accordance with Rule 12-2204.

(3) High-voltage type TC cables shall not be installed in the same cable tray with low-voltage conductors except where the high-voltage TC cables are separated from the low-voltage conductors by a barrier of sheet metal not less than 0.528 inch thick (No. 16 MSG).

(4) The location of conductors encased or embedded in concrete or masonry shall be indicated by acceptable permanent markers set in the walls, floors, or ceilings.

(5) Where the coverings are of a conductive nature they shall be stripped back from the terminals sufficiently to prevent leakage of current.

(6) Service conductors shall have a mechanical strength not less than that of No. 6 AWG hard drawn copper.

**36-102 Radii of Bends.** The minimum bending radii measured at the innermost surface of the bend for permanent training of cables during installation shall be as shown in Table 15.

### 36-104 Shielding of Thermoset Insulated Conductors

(1) Except as permitted in Subrules (2), (3), and (4) shielding shall be provided over the thermoset insulation of each permanently installed conductor with or without fibrous covering or non-metallic jacket, operating at circuit voltages above 2,000 volts phase-to-phase.

(2) Shielding need not be provided for conductors having thermoset insulation where they are directly buried in the soil and operating at circuit voltages not exceeding 3,000 volts phase-to-phase, provided that the insulation or the non-metallic jacket, if provided, is of ozone and discharge-resistant type.

(3) Shielding need not be provided for conductors having thermoset insulation where the circuit voltage does not exceed 5,000 volts phase-to-phase, where the conductors are installed on insulators or in metallic raceways and bound together, in electrical equipment rooms, electrical equipment vaults, metal-enclosed switchgear assemblies, and similar permanently dry locations where the conductor run does not exceed 15 metres.

(4) Shielding need not be provided for conductors having thermoset insulations which are:

- (a) Intended for operation at not more than 5,000 volts phase-to-phase;
- (b) Intended and installed for permanent duty; and
- (c) Provided in either single- or multi-conductor cable construction with:
  - (i) A metallic sheath; or
  - (ii) Metallic armour of the interlocking type, the wire type or the flat type type.

(5) Subject to Rule 10-302, metallic sheaths, metallic shielding, metal armour, metal conduit and metal fittings shall be bonded together and connected to ground.

**36-106 Supporting of Exposed Conductors.** Bare conductors and insulated conductors unless enclosed in or in contact with grounded metal shall be mounted on suitable insulating supports capable of withstanding the short circuit stresses liable to be imposed by the supply system.

### 36-108 Spacing of Exposed Conductors

(1) Bare conductors, and insulated conductors unless enclosed in or in contact with grounded metal, other than those within or at the point of connection to apparatus or devices shall be spaced to provide

a clearance under all operating conditions in accordance with Tables 30 and 31 between:

- (a) Live parts of opposite polarity; and
- (b) Live parts and all other structural parts other than the conductor supports.

(2) Where the conductors mentioned in Subrule (1) are connected to apparatus or devices having terminal spacings less than those shown in Tables 30 and 31, the conductors shall be spread out so as to attain the required spacings at the first point of support beyond such terminals.

### 36-110 Guarding of Live Parts and Exposed Conductors

(1) Bare conductors, insulated conductors unless enclosed in or in contact with grounded metal, and other bare live parts shall be:

- (a) Accessible only to authorized persons; and
- (b) Isolated by elevation or by acceptable barriers.

(2) Where the conductors or live parts mentioned in Subrule (1) are isolated by elevation, the elevations and clearances maintained shall be as specified in Tables 32, 33, and 34 except that:

- (a) For voltages in excess of those specified in Tables 32, 33 and 34, the elevations and clearances maintained shall be in accordance with the requirements of CSA Standard CAN3-C22.3 No. 1-M87, Overhead Lines; and
- (b) For conductors crossing highways, railways, communication lines, and other locations not covered in this Code, the elevations and clearances maintained shall be in accordance with the requirements of CSA Standard CAN3-C22.3 No. 1-M87, Overhead Lines.

(3) For a given span, clearances specified in Tables 32 and 34 shall be increased by 1 per cent of the amount by which the span exceeds 50 metres.

**36-112 Terminating Facilities.** Suitable terminating facilities shall be provided to protect cables from harm due to moisture or mechanical damage.

### 36-114 Joints in Sheathed Conductors or Cables

(1) Splices or taps in sheathed conductors or cables shall have the conductor or cable covered with insulation and shall have shielding, when used, electrically and mechanically equivalent to that on the conductors or cables joined.

(2) For conductors or cables having a metallic or conducting sheath, provision shall be made for continuity of the sheath over the splice or tap unless the joint is made in a suitable splicing box which maintains the continuity of the bonding path.

### 36-116 Elevator Shafts

(1) High-voltage conductors shall not be installed in elevator shafts.

(2) The conductors may be installed in conduit embedded in the masonry walls of the hoistway but the conduit shall be surrounded throughout the entire length of its run by not less than 50 millimetres of masonry or concrete.

### Control and Protective Equipment

**36-200 Service Equipment Location.** Service equipment shall be installed in an acceptable location and in compliance with applicable codes and standards under a rule or by-law of the supply authority concerning service equipment location and, in the case of a building, shall be at the point of service entrance.

**36-202 Rating and Capacity.** The type and ratings of circuit breakers, fuses and switches, including the trip settings of circuit breakers and the interrupting capacity of overcurrent devices shall be:

- (a) Acceptable; and
- (b) Sized in accordance with the appropriate Rules of this Code for transformers, capacitors, motors and other electrical equipment.

### 36-204 Overcurrent Protection

(1) Each consumer's service, operating unit of apparatus, feeder and branch circuit shall be provided with overcurrent protection having adequate rating and interrupting capacity in all ungrounded conductors by one of the following:

- (a) A circuit breaker;
- (b) Fuses preceded by a group-operated visible break load-interrupting device capable of making and interrupting its full load rating and which may be closed with safety to the operator with a fault on the system; or
- (c) Fuses preceded by a group-operated visible break air-break switch capable of interrupting the magnetizing current of the transformer installation and which may be closed with safety to the operator with a fault on the system and so interlocked with the transformers secondary load interrupting device to prevent its operation under load.

(2) Fuses shall be accessible to authorized persons only.

### 36-206 Indoor Installation of Circuit Breakers, Switches and Fuses

(1) Circuit breakers, switches, and fuses installed indoors shall be in an acceptable enclosure unless installed in a room of non-combustible construction.

(2) In addition to the requirements of Subrule (1), dielectric liquid-filled equipment located indoors shall be installed in accordance with Rules 26-012 and 26-246.

**36-208 Interlocking of Fuse Compartments.** Compartments containing fuses shall have the cover (or door) interlocked with the isolating or disconnecting means so that:

- (a) Access cannot be had to the fuses unless the isolating or disconnecting means immediately ahead of the fuses is in the de-energized position; and
- (b) The switch cannot be placed in the closed position until the fuse compartment has been closed.

### 36-210 Protection and Control of Instrument Transformers

(1) Instrument potential transformers shall have overcurrent protection as required by Rule 26-258.

(2) A suitable disconnecting means shall be provided on the supply side of fuses used for the protection of instrument potential transformers.

### 36-212 Outdoor Installations

(1) High-voltage switches not of the metal enclosed type which are assembled in the field shall be spaced according to Table 35.

(2) Horn-gap switches shall be mounted in a horizontal position and be capable of being locked in the open position.

(3) High-voltage fuses shall be spaced according to Table 35.

### 36-214 Disconnecting Means

(1) Where conductors fed directly by an outdoor station enter a building, either:

- (a) A load-breaking device shall be installed indoors at the entry of the conductors to the building; or
- (b) A load-breaking device at the outdoor service shall be capable of being tripped or operated from within the building.

(2) Unless of the draw-out type each circuit breaker and each load-break switch having contacts which are not visible for inspection in both the open and closed positions shall be provided with a group-operated isolating switch on the supply side which shall:

- (a) Be provided with the means for adequate visible inspection of all contacts in both the open and closed position;
- (b) Be interlocked so that it cannot be operated under load; and
- (c) Be provided with positive position indicators.

(3) Group operated isolating switches complying with Subrule (2) shall be provided where required to prevent the possibility of feedback.

(4) In a double-ended station forming part of an industrial establishment, isolation meeting the requirements of Subrule (2) shall be provided to prevent feedback to a high voltage circuit through the transformer secondary power circuits.

### Grounding and Bonding

#### 36-300 Material and Minimum Size of Grounding Conductor and Ground Grid Conductor and Connections

(1) Except as provided for in Subrule (2) bare copper conductors shall be used for grounding purposes and shall be not smaller than those specified in Rules 36-302 to 36-310 and Table 51.

(2) Notwithstanding the requirement of Subrule (1) galvanized steel, copper-weld or other metallic conductor may be permitted for grounding purposes providing:

- (a) Its current-carrying rating is equal to or greater than that of the copper conductor specified in Rules 36-302 to 36-310;
- (b) Consideration is given to galvanic action if such conductors are buried in the ground or come in contact with dissimilar metals;
- (c) The method of bolting or connecting such conductors to each other and to other surfaces is such as to maintain the required current-carrying capacity for the life of the electrode design; and
- (d) The necessary supporting data is supplied.

#### 36-302 Station Ground Electrode

(1) Every outdoor station shall be grounded by means of a station ground electrode which shall meet the requirements of Rule 36-304 and shall:

- (a) Consist of a minimum of four driven ground rods not less than 3 metres long and  $\frac{3}{4}$  inch in diameter spaced at least the rod length apart and where practicable located adjacent to the equipment to be grounded;
- (b) Have the ground rods interconnected by ground grid conductors not less than No. 2/0 AWG bare copper buried to a maximum depth of 600 millimetres below the rough station grade and a minimum depth of 150 millimetres below the finished station grade; and
- (c) Have the station ground grid conductors in Subrule 1(b) connected to all non-current-carrying metal parts of equipment and structures and shall where practicable form a loop around the equipment to be grounded.

(2) Notwithstanding Subrule (1), a buried station ground electrode other than described in Subrule (1) is

permitted to be used where having regard for public safety and protection of property, the installation is not dangerous.

(3) Where it is not practicable to locate the station ground electrode adjacent to the station as described in Subrule (1) the station ground electrode is permitted to be remote from the station; and

- (a) Two grounding conductors of a minimum of No. 2/0 AWG copper shall connect the ground electrode to the station equipment in such a way that should one grounding conductor or ground electrode be damaged, no single metal structure or equipment frame may become isolated; and
- (b) In locations with system short circuit currents exceeding 30 000 amperes, the grounding conductor wire size shall be increased and shall be such that it will not suffer thermal damage or be a fire hazard under the severest fault conditions occurring on the system thus grounded in accordance with Rule 36-300.

(4) Every indoor station shall be grounded by means of a station ground electrode:

- (a) In accordance with Subrules (1), (2), or (3); or
- (b) If it is not practicable to ground an indoor station in accordance with Subrules (1), (2), or (3) and the indoor station receives its supply from a main station on the same property, the station equipment shall be connected to the main station ground electrode in accordance with Subrule (3).

(5) All parts of the indoor station which are required to be grounded shall be connected together by copper conductors of not less than No. 2/0 AWG.

#### 36-304 Station Ground Resistance

(1) The maximum lawful resistance of the station ground electrode shall be determined by the maximum fault current in the station, and the ground resistance shall be such that under all soil conditions the maximum fault current conditions shall limit the potential rise of the station ground grid to 5,000 volts, or, in special circumstances where this level cannot be reasonably achieved, such higher voltage not exceeding the maximum insulation level of the communication equipment as is lawful under Rule 2-030.

(2) In addition to the requirements of Subrule (1) the touch and step voltage within the station grounding electrode area shall not exceed tolerable values as specified in Table 52.

(3) The resistance of the station ground electrode at each station shall be measured after completion of construction and changes shall be made if necessary to ensure that the maximum permissible resistance of Subrule (1) is not exceeded.

**36-306 Connections to the Station Ground Electrode**

(1) All non-current carrying metallic equipment and structures forming part of the station shall be bonded to the station ground electrode to prevent the build-up of dangerous potential differences between the equipment or structures and the nearby earth.

(2) All metallic items forming part of the station shall be connected to the station ground electrode as follows:

(a) **Metallic structures:**

- (i) Single columns or pedestal type (pipe, etc.) structures shall be bonded to ground by a bonding conductor not less than No. 2/0 AWG copper; and
- (ii) Single and multi-bay structures shall be bonded to ground at each column by a bonding conductor not less than No. 2/0 AWG copper;

(c) **Apparatus mounted on both metal and non-metal structures (e.g., wood pole, concrete, etc.):**

- (i) Tanks or frames of transformers, generators, motors, circuit breakers, reclosers, instrument transformers, switchgear, and other equipment shall be bonded to ground by bonding conductors of not less than No. 2/0 AWG copper.
- (ii) Metal bases of all gang-operated switches shall be bonded to ground by a bonding conductor of not less than No. 2/0 AWG copper (for switch handles see Rule 36-308);
- (iii) The grounding of metal bases single-pole fuse cutouts and isolating switches is optional, providing, having regard for public safety and protection of property, the installation is not dangerous.

(d) **Lightning arresters;**

- (i) The lightning arresters shall be connected to the station ground electrode by a grounding conductor of not less than No. 2/0 AWG copper;
- (ii) Lightning arrester grounding conductors shall be as short, straight and direct as practicable;
- (iii) Where lightning arresters are for the protection of high-voltage cable and cable sheath, the lightning arrester grounding conductor shall be connected to metal potheads and/or metal sheath or armour or shielding of all cables;

(e) A metallic water main inside or adjacent to the station ground electrode area, shall be grounded by at least one copper conductor of not less than No. 2/0 AWG copper, at intervals not exceeding 12 metres;

(f) The non-current-carrying parts of metallic equipment such as:

- (i) Cable sheaths, cable armour, shield, bonding conductors, potheads, raceways, pipe work, screen guards and switchboards by copper conductor of not less than No. 4 AWG;
- (ii) Meter, instrument and relay cases, when mounted on insulated panels, by a copper conductor of not less than No. 10 AWG;
- (iii) The metal frame and all exposed metal work on buildings within or forming part of the station shall be:

(A) Bonded to the station ground electrode by a minimum of No. 2/0 AWG copper in at least two places and at intervals not exceeding 12 metres along the building perimeter;

(B) Where a building forms part of the fence or is located outside the fence but is electrically connected to the station ground electrode area by means of cables, conduits, or other metallic means, a loop of No. 2/0 AWG copper shall be installed around and at a distance of at least 1 metre from the building and it shall be connected to the metal work of the building at intervals not exceeding 12 metres along the perimeter; and

(C) The loop shall be buried horizontally to a maximum depth of 600 millimetres and it shall be connected to the station ground electrode at two points with a minimum No. 2/0 AWG copper and where practicable a layer of clean crushed stone 1 metre in width and 150 millimetres in depth covering the area immediately outside the building and surrounding the whole building is recommended;

(g) Steel rails of railway spur tracks entering an outdoor station ground electrode area by a copper conductor of not less than No. 2/0 AWG with the part of the spur track located outside the station ground electrode area isolated from the station ground electrode by insulating joints.

(3) A transmission line overhead ground wire is permitted to be either:

(a) Isolated from the station ground electrode; or

- (b) Connected to the station ground electrode with a grounding conductor of not less than No. 2/0 AWG copper which, notwithstanding Rule 36-300(1), is permitted to be insulated.

(4) A line neutral conductor on grounded neutral systems by a grounding conductor with not less than the equivalent current-carrying capacity of the neutral conductor.

(5) A transformer neutral on grounded neutral systems, by a copper grounding conductor not less than No. 2/0 AWG, which shall also be of sufficient size and capacity to carry the maximum ground fault current of the transformer in accordance with Table 51.

### 36-308 Grounding of Gang-Operated Switch Handles

(1) The operating handle of all gang-operated switches not enclosed in metal housings shall be bonded to ground in an acceptable manner by one of the following methods:

- (a) An approved, multi-revolution bonding device connected to the station ground electrode by a grounding conductor having a current-carrying capacity of not less than No. 2/0 AWG copper; or
- (b) The operating shaft shall be connected to the station ground electrode by a combination of extra flexible conductor, braid, and/or stranded conductor not less than No. 2/0 AWG copper.

(2) In addition to the requirements of Subrule (1) the touch voltage shall be maintained at a tolerable level as specified in Table 52 at the location where the operator is normally standing and shall be done in an acceptable manner as follows:

- (a) By the use of a metallic gradient control mat connected to the operating handle bonding conductor as required in Subrule (1) by two separate conductors each not less than No. 2/0 AWG copper; and
- (b) The gradient control mat:
  - (i) Shall be so positioned that the operator will not be required to step from the mat during the operation of the switch;
  - (ii) Shall be placed on a minimum of 150 millimetres of crushed stone on the ground;
  - (iii) Shall have dimensions approximately 1.2 metres by 1.8 metres; and
  - (iv) Is permitted to be covered by a layer of crushed stone, asphalt, or concrete not exceeding 150 millimetres in depth, where the mat is not located inside a station fence.

### 36-310 Bonding of Wire Fence Enclosures of Outdoor Stations

(1) The fence shall be bonded to ground by means of a conductor loop of not less than No. 2/0 AWG located outside the fence, and where practicable 600 millimetres from the fence line and buried to a depth of 150 to 200 millimetres below rough grade, on which a layer of clean crushed stone 1 metre in width and 150 millimetres in depth covering the area both inside and outside the fence shall be placed where necessary to maintain the touch voltage within the tolerable value as specified in Table 52.

(2) Ground rods shall be installed at intervals not exceeding 12 metres, and each ground rod shall be connected to the fence ground loop conductor by a conductor of not less than No. 2/0 AWG copper and the conductor loop shall be bonded to the fence by a tap conductor at each end post, corner post, gate post, and fence posts at intervals not exceeding 12 metres by a conductor of not less than No. 2/0 AWG copper.

(3) The tap conductor at each hinge gate post shall be clamped or bonded to the gate frame by a copper braid or a flexible copper conductor of at least No. 2/0 AWG.

(4) The tap conductor shall be bonded to the fence post, the bottom tension wire, the fence fabric for which the conductor may be woven in at least two places, the top rail and each strand of barbed wire with the connection to the bottom tension wire, the fence fabric and barbed wire strands made with bolted or equivalent connectors, and with the top rail connections bonded at every joint by a jumper equivalent to No. 2/0 AWG copper.

(5) The fence ground loop:

- (a) Shall be connected to the station ground electrode at not less than two places where the fence is located within 1.5 metres of the station equipment or ground grid conductors or when metallic pipes, sheathed cables or other conducting materials are present, or where it is necessary to lower the station ground electrode resistance to the required level;

- (b) Need not be connected to the station ground electrode unless the conditions of Subrule (5) (a) are present.

(6) When the fence ground loop is connected to the station ground electrode (Subrule (5) (a)) and when the fence forms part of a metallic boundary fence, the boundary fence shall be isolated from the station fence by a insulated fenced section of at least 2.4 metres in length.

### ELEVATORS, ESCALATORS AND SIMILAR EQUIPMENT

**38-000 Scope.** This Section applies to the installation of electrical equipment for passenger and freight ele-

vators, including dumbwaiters, escalators, moving walks, freight platform lifts, and elevating devices for the handicapped, and is supplementary to, or amendatory of, the general requirements of this Code.

### 38-002 Voltage Limitations

(1) No part of any electric circuit having a circuit voltage in excess of 300 volts shall be used on any car or control circuit, except that higher voltages may be used for frequencies of 25 through 60 cycles alternating current or for direct current, provided that the current in the system cannot, under any conditions, exceed 8 milliamperes for alternating current or 30 milliamperes for direct current.

(2) Electric circuits in machine rooms or penthouses for the operation of motors and brakes shall have a potential not in excess of 750 volts, provided that if it exceeds 300 volts, all control and signal circuits shall be insulated from the power circuits.

(3) Electric circuits fed from motor generators, rectifiers or control transformers shall be grounded as required in Section 10.

**38-004 Isolation of Live Parts.** All live parts of electrical apparatus in hoistways, at the landings or in or on the cars of elevators and dumbwaiters, or in the wellways or at the landings of escalators shall be enclosed to protect against accidental contact.

### 38-006 Insulation of Conductors

(1) Conductors from the control panel to the main circuit resistors not located within the control panel shall be of a type suitable for use in raceways as indicated in Table 19 and shall be suitable for operation at a temperature of not less than 90°C having a rating not less than 600 volts, and be flame tested.

(2) Except for conductors in travelling cables, the insulation of all conductors in hoistways, in or on cars of elevators and dumbwaiters, in wellways of escalators and moving walks and in machine rooms of elevator dumbwaiters, escalators and moving walks, shall be flame tested and suitable for use in damp locations as indicated in Tables 11 and 19.

(3) The voltage rating of insulation of all conductors shall be suitable for the voltage to which the conductors are subjected.

**38-008 Travelling Cables.** Travelling cables used as flexible connections between elevator or dumbwaiter cars and their hoistways shall be elevator cable, suitable for use in dry locations only or damp or dry locations, as applicable, as indicated in Table 11.

### 38-010 Conductor Sizes

(1) In travelling cables the minimum size conductors shall be:

- (a) For lighting circuits, No. 14 AWG copper or No. 12 AWG aluminum except that smaller conductors may be used in parallel provided that the ampacity is equivalent to at least that of No. 14 AWG copper; and

- (b) For all operating, control, and signal circuits, No. 20 AWG copper.

(2) Except as specified in Subrule (1), the minimum size of conductors for operating, control and signal circuits shall be No. 24 AWG copper.

(3) The size of branch circuit conductors supplying individual elevator motors shall be determined in accordance with Rule 28-106 and Table 27, except that for long runs, the cross-sectional area shall be such that the voltage drop at rated current does not exceed 3 per cent of no-load voltage at the motor terminals.

(4) The size of feeder conductors supplying two or more motors shall be determined in accordance with Rule 28-108 and Table 62.

### 38-012 Branch Circuits for Car Lighting, Accessories, Heating and Air Conditioning

(1) In passenger elevators, at least one branch circuit shall be provided solely for the lighting and accessories on each car.

(2) Where air conditioning and heating units are installed on the car they shall be supplied by separate branch circuits.

(3) The overcurrent device protecting each branch circuit shall be located in the elevator machine room.

### 38-014 Wiring Methods in Hoistways, Machine Rooms and Escalator Wellways

(1) Conductors located in hoistways, machine rooms, and escalator wellways, except travelling cables, shall be installed in rigid metal conduit, electrical metallic tubing or metal wireways, except that flexible metal conduit or armoured cable is permitted if not subject to mechanical damage.

(2) Only conductors used in connection with the operation of the elevator or dumbwaiter supply or feeder conductors, including wiring for signals, hoistway-fire detection, communication with the car and for lighting and ventilating the car, or such other conductors as are lawful under Rule 2-030, are permitted to be installed inside a hoistway.

(3) Mineral-insulated cable or aluminum-sheathed cable may be used if located so that there is no liability of damage to the sheath.

(4) Travelling cable to the elevator is permitted to be installed in the hoistway and on the car as fixed wiring without the use of conduit or other raceway providing it is suitably supported from damage.

(5) Extra hard usage cable as listed in Table 11 is permitted as flexible connections on escalator or moving walk controllers and disconnecting means installed in conformity with Rules 38-044(6) and 38-050(3).

### 38-016 Wiring Methods on Cars

(1) Conductors on elevators and dumbwaiter cars shall be run in rigid metal conduit, electrical metallic tubing or wireways, except that:

- (a) Short runs of flexible metal conduit or armoured cable may be used where they are securely fastened in place and not exposed to oil or grease;
- (b) Flexible cord listed in Table 11 as suitable for hard usage is permitted to be used between fixed wiring on the car and switching or sensing devices on the door or gate, and between the fixed car top inspection light and an extension light controlled by the same switch, provided it is securely fastened and so located as to not be subject to mechanical injury.
- (c) **Mineral-insulated cable or aluminum-sheathed cable** may be used if located so that there is no liability of damage to the sheath.

(2) Where conductors may be in contact with oil or grease, they shall have oil-resistant insulation.

(3) Where cord permitted in Subrule (1) contains an identified conductor and/or a conductor showing green, or green yellow combination coloured insulation, such conductors may be used for control circuitry, provided that by painting, taping, or other suitable means, their colouring has been suitably altered wherever they are made accessible, or visible, through removal of the outer covering of the cord.

### **38-018 Wiring Methods Between Motors, Machine Brakes, Valves, Generators, and Control Panels**

(1) Conductors of circuits between motors, machine brakes, valves, generators, and control panels may be run without additional protection, provided the conductors are:

- (a) Not over 2 metres long;
- (b) Bound together and supported at intervals not more than 1 metre; and
- (c) Not located so as to be subject to mechanical damage or to temperatures in excess of their ratings.

(2) Where motor-generators are used with elevator motors and both are located adjacent to or underneath the control equipment and are provided with extra-length terminal leads, the leads may be connected directly to the controller or motor generator terminal studs, and the provisions of Rule 4-004 in respect of ampacity shall not apply, but no lead shall be longer than 2 metres.

**38-020 Wiring Methods on Sidewalk Elevators.** Where the top-terminal-landing opening is in the sidewalk or other area exterior to the building, the following special requirements apply:

- (a) All electrical wiring shall be installed in rigid conduit or electrical metallic tubing except that:
  - (i) Lead-sheathed armoured cable, not

exceeding 1.5 metres in length, may be used as permitted in Rule 38-014 (1); and

- (ii) Mineral-insulated cable or aluminum-sheathed cable may be used if located so that there is no liability of damage to the sheath;

- (b) All boxes and fittings in the hoistway shall be weatherproof;
- (c) All electrical equipment in or on the car shall be weatherproof;
- (d) Travelling cables, where used between the car and hoistway wiring shall be elevator cable, suitable for damp locations as indicated in Table 11.
- (e) Slack rope switches where required, lower normal-terminal and lower final-terminal hoistway limit switches, and pit stop switches, shall be located as far above the bottom of the pit as practicable.

**38-022 Grouping of Conductors.** Conductors of elevator operating, control, signal, telephone and lighting circuits may be run in the same raceway or travelling cable provided that all conductors are insulated for the maximum voltage found in the cable or raceway system.

**38-024 Raceway Supports.** Supports for raceways in hoistways or escalator wellways shall be securely fastened to the guide-rail, hoistway or wellway construction.

### **38-026 Fittings**

(1) Where conduit or electrical metallic tubing is installed in the open, split fittings or clamp fittings may be used provided the conduit or tubing does not contain feeders.

(2) Where conductors leave raceways, the provisions of Rules 12-3002, 12-3006, and 12-3008 shall apply.

(3) No terminal fitting shall be installed less than 150 millimetres from the floor in machine rooms.

### **38-028 Suspension of Travelling Cables**

(1) Where the length of unsupported cable exceeds 60 metres, the cable shall be so supported at each end that the weight of the unsupported cable is borne by the steel support filler incorporated in the cable assembly.

(2) Where the length of unsupported cable does not exceed 60 metres, the cable shall be supported at each end by:

- (a) Looping around supports; or
- (b) A means capable of automatically gripping the cable in reaction to tension applied by the cable weight.

**38-030 Hazardous Locations.** In hazardous locations, travelling cables shall terminate in cabinets approved for the class and group of the location and shall enter such enclosures through heavy-duty rubber-bushed threaded connector bushings which have been designed for this use.

**38-032 Mechanical Protection.** Whenever the travelling cables in swinging may come in contact with projections or corners of the building construction in the hoistway, such as "I" beams, beams, ledges and the like, such irregular surfaces shall be made smooth by covering with heavy gauge sheet metal or by other acceptable means.

### **38-034 Disconnecting Means**

(1) Disconnecting means shall be provided for the opening of all ungrounded conductors of:

- (a) The drive motor and its ventilation and control circuits in each elevator, dumbwaiter and escalator operating individually or as one of a group.
- (b) The signal dispatch and scheduling circuitry, common to a group of elevators, dumbwaiters, or escalators; and
- (c) The branch circuit supplying the lighting and accessories in each elevator car and such circuit shall not be controlled by the disconnecting means described in paragraphs (a) or (b).

(2) Each disconnecting means shall be an externally operated fusible switch or a circuit breaker and shall be equipped with means for locking it in the open position.

(3) The overcurrent protection shall be coordinated with any upstream overcurrent protective device.

(4) Means shall be provided on the switch or circuit breaker to indicate the disconnected position.

(5) The disconnecting means shall be located where it is visible on entry to the machinery area and readily accessible to authorized persons.

(6) When the disconnecting means required by Subrule (1)(a) is not visible from, or is located more than 9 metres from the machine, controller or motor generator set, an additional manually operable switch:

- (a) shall be installed so that it is visible from, or adjacent to, the remote equipment;
- (b) shall prevent the machine or motor generator set from starting when in the open position; and
- (c) is permitted to be connected in the control circuit.

(7) Each disconnecting means shall be plainly marked to indicate the machine or circuit that it controls.

(8) The disconnecting means serving an escalator or moving walk controller shall be installed in the same location as the controller.

### **38-036 Emergency Power**

(1) An elevator shall be permitted to operate from an emergency power supply in the event of normal power supply failure provided the elevator operates on such emergency power in accordance with the emergency power system requirements of CSA Standard CAN3-B44-M85, Safety Code for Elevators.

(2) The disconnecting means required by Rule 38-034 shall disconnect the emergency power source and the normal power source.

(3) In the case of hydraulic elevators where emergency power is supplied from a second source for lowering the car only, the disconnecting means required in Rule 38-034 shall be provided with an auxiliary contact that is positively opened mechanically, the opening not being solely dependant on springs, and connected in the control circuit to prevent movement of the car when the disconnecting means is open.

### **38-038 Overload Protection for Motors**

(1) Each ac drive motor for an elevator, dumbwaiter, and escalator, and each ac drive motor of a motor-generator set supplying current to the machine-drive motor, shall be provided with overload protection in accordance with Rule 28-302.

(2) Overload devices shall be provided for each dc machine-drive motor where:

- (a) Motor-generator set provides power to two or more drive motors;
- (b) The capacity of the motor-generator set is such that the protection provided in accordance with Subrule (1) is inadequate; or
- (c) The drive motor of a variable-voltage machine is subject to overcurrent at reduced voltage during levelling.

(3) The overload devices required by Subrule (2) (c) may be omitted where a time-delay relay is provided in the levelling circuit for purposes of disconnecting the power supply at the motor-generator set within an interval which will prevent damage to motor windings.

### **38-040 Overcurrent Protection of Operating, Control and Signal Circuits**

(1) Overcurrent protection for operating and control circuits shall be provided in accordance with Section 14.

(2) Overcurrent protection for signal circuits shall be provided in accordance with Section 16.

**38-042 Installation of Machines.** Elevator, dumbwaiter or escalator machines, controllers, and auxiliary equipment shall be installed in a space which is secured against unauthorized access.

**38-044 Installation of Control Panels**

(1) There shall be a working space of not less than 600 millimetres, clear of live parts, behind each controller where the back panel of the control cabinet can be removed or opened, and not less than 750 millimetres of working space clear of live parts in front of each controller.

(2) There shall be a clear access of 460 millimetres width from the front to the rear of the controller and if there are any exposed current-carrying parts in this area, they shall be protected by barriers.

(3) Controllers shall be enclosed in cabinets with doors or removable sections and the working space prescribed in Subrule (1) shall apply when the doors are opened or any section is removed.

(4) Controllers may be mounted on, over, or against the machine provided that there is reasonable access to the controller.

(5) Auxiliary equipment may be placed in front or rear of the controller, provided that the installation of such equipment will not reduce the space requirements of Subrule (1).

(6) An enclosed escalator or a moving walk controller and its disconnecting means is permitted to be installed with less working space than required in Subrule (1) provided that:

- (a) The controller and disconnecting means can be readily removed for maintenance purposes;
- (b) Extra hard usage cable is used as flexible connections; and
- (c) The controller, disconnecting means and external devices are grounded to conform with Rule 38-050(3).

**38-046 Bonding of Raceways to Car.** Metal raceways attached to the car shall be bonded to metal parts of the car with which they come in contact.

**38-048 Bonding of Equipment.** The frames of all motors, generators, machines, controllers, and the metal enclosures for all electrical devices shall be bonded to ground.

**38-050 Methods of Bonding**

(1) Equipment mounted on members of a grounded structural metal frame of a building shall be deemed to be bonded to ground.

(2) Metal car frames supported by metal hoisting cables attached to or running over sheaves or drums of elevator machines shall be deemed to be bonded when the machine is bonded to ground in accordance with Section 10.

(3) Enclosed equipment connected by flexible cables so that it can be readily removed from a

machine space for maintenance as permitted by Subrule 38-044(6), shall be bonded to all connected external devices and to ground by means of an equipment bonding conductor run with the circuit conductors.

**38-052 Branch Circuit and Lighting for Machine Rooms**

(1) Permanent provision of adequate artificial light shall be made in machine rooms of power elevators.

(2) Illumination shall be not less than 100 lux at floor level.

(3) The machine room lighting switch shall be within easy reach of the entrance to the machine room.

(4) At least one duplex receptacle connected to a 15 ampere branch circuit supplying no other receptacles shall be installed in the machine room.

**38-054 Branch Circuit and Lighting for Hoistway Pits**

(1) One or more permanent luminaires equipped with a guard of metal, safety glass or suitable plastic material shall be provided in all pits.

(2) The lighting luminaire(s) shall provide an illumination level of at least 100 lux at the pit floor.

(3) A light switch shall be provided and shall be located so as to be accessible from the pit access door.

(4) At least one duplex receptacle connected to a 15 ampere branch circuit supplying no other receptacles shall be installed in each pit.

**SECTION 40—ELECTRIC CRANES AND HOISTS****40-000 Scope**

(1) This Section covers such features of the installation of electrical equipment providing circuits for electric cranes, hoists, and monorails which are additional to or amendatory of the general requirements of this Code.

(2) This Section does not cover equipment and wiring of cranes, hoists, and monorails which are assembled and erected in the field and that comply with CSA Standard C22.2 No. 33-M1984, Construction and Test of Electric Cranes and Hoists.

**40-002 Supply Conductor Sizes.** The size of conductors in raceways or cables supplying main contact conductors or supplying equipment directly shall be determined from Table 58.

**40-004 Conductor Protection**

(1) Conductors supplying main contact conductors shall be in rigid conduit, electrical metallic tubing, armoured cable, mineral-insulated cable or aluminum-

sheathed cable except as otherwise provided for in Rule 40-018.

(2) Conductors supplying the equipment directly shall comply with Subrule (1) unless a flexible connection is required in which case an acceptable armoured or unarmoured cable or flexible cord, with take-up devices where necessary to prevent damage to the cable or cord and to keep it clear of the operating floor, may be used.

**40-006 Overcurrent Protection.** Conductors supplying main contact conductors or supplying the equipment directly where there are no main contact conductors shall be provided with overcurrent protection in accordance with the requirements of Rule 28-200 for the motor load plus an allowance in accordance with Rule 14-104 for any other loads if the size of conductors has been increased to provide capacity for the other loads.

**40-008 Disconnecting Means.** Suitable means which will disconnect all ungrounded conductors of the circuit simultaneously shall be:

- (a) Provided within sight of the main contact conductors or within sight of the equipment if there are no main contact conductors; and
- (b) Accessible and operable from the ground or from the floor over which the equipment operates.

#### **40-010 Main Contact Conductors**

(1) Bare main contact conductors shall have an ampacity not less than that of the conductors supplying them and, if wire is used in no case shall they be smaller than:

- (a) No. 4 AWG copper or No. 2 AWG aluminum if the length of contact conductor is 18 metres or less;
- (b) No. 2 AWG copper or No. 1/0 AWG aluminum if the length of contact conductor is greater than 18 metres, unless the intermediate insulating supports are of a clamp type which is capable of providing some strain relief.

(2) Bare main contact conductors may be of hard drawn copper or aluminum wire or may be of steel or other suitable metal in the form of tees, angles, T-rails, or other rigid shapes.

#### **40-012 Spacing of Main Contact Conductors**

(1) Bare main contact conductor wires shall be supported so that:

- (a) They will be separated, centre-to-centre:
  - (i) Not less than 150 millimetres for other than monorail hoists, if installed in a horizontal plane;
  - (ii) Not less than 75 millimetres, for monorail hoists, if installed in a horizontal plane; or
  - (iii) Not less than 200 millimetres, if installed in other than a horizontal plane; and

(b) The extreme limit of displacement will not bring them within less than 38 millimetres of the surface wired over.

(2) Rigid main contact conductors shall be supported so that there will be an air space of not less than 25 millimetres between conductors, between conductors and adjacent collectors, and between conductors and the surface wired over.

#### **40-014 Supporting of Main Contact Conductors**

(1) Bare main contact conductor wires shall be secured at each end to strain insulators, and shall be supported on insulating supports placed at intervals not exceeding 6 metres except that, where building conditions make the above impossible, the interval between insulating supports may be increased to a maximum of 12 metres if the separation between contact conductors is increased proportionately.

(2) Rigid main contact conductors shall be secured to insulating supports spaced at intervals of not more than 80 times the vertical dimension of the conductor, but in no case greater than 4.5 metres.

**40-016 Joints in Rigid Contact Conductors.** Joints in rigid main contact conductors shall be made so as to ensure proper ampacity without overheating.

**40-018 Use of Track as a Conductor.** Monorail, tramrail or crane runway tracks may be used as a main contact conductor or as a supply circuit conductor for one phase of a three-phase alternating-current system if:

- (a) The power for all phases is obtained from an isolating transformer;
- (b) The voltage does not exceed 300 volts;
- (c) The rail serving as a conductor is effectively grounded, preferably, at the transformer, with permissive additional grounding by the fittings used for the suspension or attachment at the rail to the building structure; and
- (d) Any joints in the rail meet the requirements of Rule 40-016.

#### **40-020 Guarding of Contact Conductors**

(1) Contact conductors shall be so guarded that inadvertent contact cannot be made with bare current carrying parts or they shall be incorporated in an acceptable enclosed contact assembly.

(2) Guarding of bare contact conductors are not required where a clearance of at least 6 metres between such conductors and grade, floor, or any working surface is provided and maintained.

**40-022 Contact Conductors Not to Supply Other Equipment.** Contact conductors shall not be used as feeders for any equipment other than that essential for the operation of the cranes, hoists or monorails which they supply.

**40-024 Grounding**

(1) All exposed non-current carrying metal parts shall be bonded to ground.

(2) Tracks shall be bonded to ground as required by Rule 10-406 or 40-018.

(3) The flexible supply connection permitted in Rule 40-004 (2) shall incorporate a bonding conductor.

**SECTION 42—ELECTRIC WELDERS****General**

**42-000 Scope.** This Section applies to the installation of electric welders and is supplementary to, or amendatory of, the general requirements of this Code.

**42-002 Special Terminology.** In this Section, the following definitions apply:

- (a) **"Rated primary current"** means the kilovolt-ampere rating of the welder as shown on the nameplate thereof multiplied by 1000 and divided by the rated primary voltage shown on the nameplate on the welder;
- (b) **"Actual primary current"** means the current drawn from the supply circuit during each welder operation at the particular heat tap and control setting used; and
- (c) **"Duty cycle"** means the ratio of the time during which the welder is loaded to the total time required for one complete operation.

**42-004 Receptacles and Attachment Plugs.** Where a welder is cord connected, the rating of the receptacle and attachment plug is permitted to be less than the rating of the overcurrent devices protecting them, but not less than the ampacity of the supply conductors required for the welder.

**Transformer Arc Welders****42-006 Supply Conductors**

(1) The supply conductors for an individual transformer arc welder shall have an ampacity of not less than the value obtained by multiplying the rated primary current of that welder in amperes by a factor of:

- (a) 1.00, 0.95, 0.89, 0.84, 0.78, 0.71, 0.63, 0.55 or 0.45 for welders having a duty cycle of 100, 90, 80, 70, 60, 50, 40, 30 and 20 per cent or less respectively; or

- (b) 0.75 for a welder having a time rating of 1 hour.

(2) The supply conductors for a group of transformer arc welders shall have an ampacity not less than the sum of the currents determined for each welder in the group in accordance with Subrule (1) multiplied by a demand factor of:

- (a) 100 per cent of the two largest calculated currents of the welders in the group; plus
- (b) 85 per cent of the third largest calculated current of the welders in the group; plus
- (c) 70 per cent of the fourth largest calculated current of the welders in the group; plus
- (d) 60 per cent of the calculated currents of all remaining welders in the group.

(3) Lower values than those given in Subrule (2) are permissible in cases where the work is such that a high operating duty cycle for individual welders is impossible.

**42-008 Overcurrent Protection for Transformer Arc Welders**

(1) Each transformer arc welder shall have overcurrent protection rated or set at not more than 200 per cent of the rated primary current of the welder, unless the overcurrent device protecting the supply conductors meets this requirement.

(2) Each ungrounded conductor shall have overcurrent protection rated or set at not more than 200 per cent of the allowable ampacity of the conductor as specified in Tables 1, 2, 3 or 4, except that the next higher rating or setting may be used where:

- (a) The nearest standard rating of the overcurrent device is less than the rating or setting otherwise required by this Rule; or
- (b) The rating or setting otherwise required by this Rule results in too frequent opening of the overcurrent device.

(3) The maximum rating or setting of the overcurrent device protecting a feeder supplying a group of transformer arc welders shall not exceed a value calculated by determining the maximum rating or setting of the overcurrent device permitted by Subrules (1) and (2) for that welder which is permitted the highest rated overcurrent device of any welder supplied by the feeder, and adding thereto the sum of ampacities as calculated by Rule 42-006 for all other welders in the group.

**42-010 Disconnecting Means**

(1) A disconnecting means shall be provided in the supply connection of each welder which is not equipped with a disconnecting means mounted as an integral part of the welder.

(2) The disconnecting means shall be a switch or circuit breakers and its rating shall be not less than necessary to accommodate overcurrent protection as specified under Rule 42-008.

**Motor-Generator Arc Welders**

**42-012 Conductors, Protection and Control of Motor-Generator Arc Welders.** The rules of Section 4, Conductors, and Section 28, Motors and Generators, shall apply to motor-generator arc welders except that:

(1) The motors may be marked in amperes only; and

(2) Where the controller is built-in as an integral part of the motor-generator set, the controller need not be separately marked provided the necessary data is on the motor nameplate.

(3) The supply conductors for an individual motor generator arc welder shall have an ampacity of not less than the value obtained by multiplying the rated primary current of that welder by a factor of:

(a) 1.00, 0.96, 0.91, 0.86, 0.81, 0.75, 0.69, 0.62 or 0.55 for welders having a duty cycle of 100, 90, 80, 70, 60, 50, 40, 30 and 20 per cent or less respectively; or

(b) 0.80 for a welder having a time rating of 1 hour.

(4) The supply conductors for a group of motor generator arc welders shall have an ampacity not less than the sum of the currents determined for each welder in the group in accordance with Subrule (3) multiplied by a demand factor of:

(a) 100 per cent of the two highest calculated currents of the welders in the group;

(b) 85 per cent of the third largest calculated current of the welders in the group;

(c) 70 per cent of the fourth largest calculated current of the welders in the group; and

(d) 60 per cent of the calculated currents for all remaining welders in the group.

(5) Lower values than those given in Subrule (4) are permissible in cases where the work is such that a high operating duty cycle for individual welders is impossible.

**42-014 Supply Conductors for Resistance Welders.** The ampacity of supply conductors shall be as follows:

(a) Where an individual seam resistance welder or an individual automatically-fed resistance welder is operated at different times at different values of primary current or duty cycle, the supply conductors shall have an ampacity of not less than 70 per cent of the rated primary current of the welder;

(b) Where an individual manually-operated non-automatic resistance welder is operated at different times at different values of primary current or duty cycle, the ampacity of the supply conductors shall be not less than 50 per cent of the rated primary current of the welder;

(c) Where an individual resistance welder operates at known and constant values of actual primary current and duty cycle, the supply conductors shall have an ampacity of not less than the

value obtained by multiplying the actual primary current by a factor of 0.71, 0.63, 0.55, 0.50, 0.45, 0.39, 0.32, 0.27 or 0.22 for duty cycles of 50, 40, 30, 25, 20, 15, 10, 7.5 and 5 per cent or less respectively;

(d) Where there is a group of resistance welders, the supply conductors shall have an ampacity of not less than;

(i) The sum of the values obtained from paragraph (a), (b) or (c) for the largest welder in the group; and

(ii) 60 per cent of the values so obtained for all of the other welders in the group.

#### 42-016 Overcurrent Protection

(1) Every resistance welder shall have overcurrent protection rated or set at not more than 300 per cent of the rated primary current of the welder unless the overcurrent device protecting the supply conductors gives equivalent protection.

(2) Every ungrounded conductor of a resistance welder shall have overcurrent protection rated or set at not more than 300 per cent of the allowable ampacity of the conductor as specified in Tables 1, 2, 3 or 4, except that the next higher rating or setting may be used where:

(a) The nearest standard rating of the overcurrent devices is less than the rating or setting required by this Rule; or

(b) The rating or setting required by this Rule results in too frequent opening of the overcurrent device.

(3) The maximum rating or setting of the overcurrent device protecting a feeder supplying a group of resistance welders shall not exceed a value calculated by determining the maximum rating or setting of the overcurrent device permitted by Subrules (1) and (2) for the welder allowed the highest overcurrent protection and adding thereto the sum of ampacities as calculated by Rule 42-014 for all other welders in the group.

**42-018 Control of Resistance Welders.** Every resistance welder shall have installed in its supply circuit a switch or circuit breaker, rated at not less than the rating of the conductors as determined by Rule 42-014, whereby the welder and its control equipment can be isolated from the supply circuit.

**42-020 Nameplate Data for Resistance Welders.** Every resistance welder shall be provided with a nameplate giving the maker's name, primary voltage, frequency, rated kilovolt-amperes at 50 per cent duty cycle, maximum and minimum open-circuit secondary voltage, short-circuit secondary current at maximum secondary voltage, and the specified throat and gap setting.

**SECTION 44—THEATRE INSTALLATION****Scope**

**44-000 Scope.** This Section applies to electrical equipment and installations in buildings or parts of a building designed, intended, or used for dramatic, operatic, motion picture, or other shows, and it is supplementary to or amendatory of the general requirements of this Code.

**44-002 Motion Picture Studios and Projectors.** Motion picture studios and projectors shall comply with the requirements of Section 48.

**44-004 Sound Reproduction.** Sound reproducing equipment shall comply with the requirements of Section 66.

**General**

**44-100 Travelling Shows.** Electrical equipment used by a travelling theatrical company, circus, or other travelling show, whether or not the performance is held within a theatre, shall not be used for the initial performance of any "Stand" until a permit has been obtained from the inspection department.

**44-102 Wiring Method**

(1) Wiring in stage and stage wing areas, orchestra pits, and projection booths shall be rigid metal conduit, electrical metallic tubing, mineral insulated cable, flexible metal conduit, armoured cable, lead-sheathed armoured cable, or aluminum-sheathed cable except that:

- (a) Other wiring methods are permitted for temporary work; and
- (b) Flexible cord or cable are permitted in accordance with other Rules in this Section.

(2) Surface raceways shall not be used on the stage side of the proscenium wall.

(3) Wiring in areas other than those listed in Subrule (1) shall be in accordance with the requirements of the appropriate Sections of this Code.

**44-104 Number of Conductors in Raceways.** For border or stage pocket circuits or for remote-control circuits:

- (a) The number of conductors run in rigid metal conduit or electrical metallic tubing shall not exceed that shown in Rule 12-1014; and
- (b) Conductors run in auxiliary gutters or metal wireways shall have a total cross-sectional area not exceeding 20 per cent of the cross-sectional area of the gutter or wireway.

**44-106 Aisle Lights in Moving-Picture Theatres.** Circuits for aisle lights located under seats may supply 30 outlets provided that the size of lamp bulb which can be used with each outlet

is limited by barriers or the equivalent to 25 watts or less.

**Fixed Stage Switchboards**

**44-200 Stage Switchboards to be Dead Front.** Stage switchboards shall be:

- (a) Of the dead-front type; and
- (b) Protected above with a suitable metal guard or hood extending the full length of the board and completely covering the space between the wall and the board to protect the latter from falling objects.

**44-202 Guarding Stage Switchboards**

(1) Where a stage switchboard has exposed live parts on the back of the board, it shall be enclosed by the walls of the building, by wire mesh grills, or by other acceptable methods.

(2) The entrance to the enclosure shall have a self-closing door.

**44-204 Switches.** Switches shall be of the enclosed type and externally operated.

**44-206 Pilot Lamp on Switchboards**

(1) A pilot lamp shall be installed within every switchboard enclosure.

(2) The pilot lamp shall be connected to the circuit supplying the switchboard so that the opening of the master switch does not cut off the supply to the lamp.

(3) The lamp shall be on an independent circuit protected by an overcurrent device rated or set at not more than 15 amperes.

**44-208 Fuses.** Fuses on switchboards shall be:

- (a) Of either the plug or cartridge type; and
- (b) Provided with enclosures in addition to the switchboard enclosure.

**44-210 Overcurrent Protection.** All circuits leaving the switchboard shall have an overcurrent device connected in each ungrounded conductor.

**44-212 Dimmers**

(1) Dimmers shall be connected so as to be dead when their respective circuit switches are open.

(2) Dimmers which do not open the circuit may be connected in a grounded neutral conductor.

(3) The terminals of dimmers shall be provided with approved enclosures.

(4) Dimmer faceplates shall be arranged so that accidental contact cannot readily be made with the faceplate contacts.

**44-214 Control of Stage and Gallery Pockets.** Stage and gallery pockets shall be controlled from the switchboard.

**44-216 Conductors**

(1) Stage switchboards equipped with resistive or transformed type dimmer systems shall be wired with conductors having insulation suitable for the temperature generated therein and in no case less than 125°C.

(2) The conductors shall have an ampacity of not less than that of the switch or overcurrent device to which they are connected.

(3) Holes in the metal enclosure through which conductors pass shall be bushed.

(4) The strands of the conductor shall be soldered together before they are fastened under a clamp or binding screw.

(5) Where a conductor of No. 8 AWG or of a larger size is connected to a terminal:

- (a) It shall be soldered into a lug; or
- (b) An approved solderless connector shall be used.

**Portable Switchboards on Stage****44-250 Construction of Portable Switchboards**

(1) Portable switchboards shall be placed within enclosures of substantial construction but may be arranged so that the enclosure is open during operation.

(2) There shall be no live parts exposed within the enclosure except those on dimmer faceplates.

**44-252 Supply for Portable Switchboards**

(1) Portable switchboards shall be supplied by means of flexible cord or cable, Types S, SO, or ST, terminating within the switchboard enclosure in an externally operated, enclosed, fused master switch.

(2) The master switch shall be arranged so as to cut off current from all apparatus within the enclosure except the pilot light.

(3) The flexible cord or cable shall have a sufficient ampacity to carry the total load current of the switchboard.

(4) The ampere-rating of the fuses of the master switch shall not be greater than the total load current of the switchboard.

**Fixed Stage Equipment****44-300 Footlights**

(1) Where footlights are wired in rigid metal conduit or electrical metallic tubing, every lampholder shall be installed in an individual outlet box.

(2) Where footlights are not wired in rigid metal conduit or electrical metallic tubing the wiring shall be installed in a metal trough.

**44-302 Metal Work**

(1) The metal work for footlights, borders, proscenium sidelights, and strips shall be not less than 0.0309 inch (No. 20 MSG) thick.

(2) The metal work for bunches and portable strips shall be not less than 0.0209 inch (No. 24 MSG) thick.

**44-304 Clearances at Terminals.** The terminals of lampholders shall be separated from the metal of the trough by at least 13 millimetres.

**44-306 Mechanical Protection of Lamps in Borders, Etc.** Borders, proscenium sidelights, and strips shall be constructed so that the flanges of the reflectors or other suitable guards protect the lamps from mechanical injury and from accidental contact with scenery or other combustible material.

**44-308 Suspended Fixtures.** Borders and strips shall be so suspended as to be electrically and mechanically safe.

**44-310 Connections at Lampholders.** Conductors shall be soldered to the terminals of lampholders unless other suitable means are provided to obtain positive and reliable connection under severe vibration.

**44-312 Ventilation for Mogul Lampholders.** Where the lighting devices are equipped with mogul lampholders, the lighting devices shall be constructed with double walls and with adequate ventilation between the walls.

**44-314 Conductor Insulation for Field Assembled Fixtures.** Foot, border, proscenium and portable strip light fixtures assembled in the field shall be wired with conductors having insulation suitable for the temperature at which the conductors will be operated and in no case less than 125°C.

**44-316 Branch Circuit Overcurrent Protection.** Branch circuits for footlights, border lights and proscenium sidelights shall have overcurrent protection in accordance with Rule 30-104.

**44-318 Pendent Lights Rated More Than 100 Watts.** Where a pendent lighting device contains a lamp or group of lamps of more than 100 watts capacity, it shall be provided with a guard of not more than 13 millimetres mesh so arranged as to prevent danger from falling glass.

**44-320 Cable for Border Lights**

(1) Flexible cord or cable for border lights shall be of Types S, SO, or ST.

(2) The flexible cord or cable shall be fed from points on the grid iron or from other acceptable overhead points but shall not be fed from side walls.

(3) The flexible cord or cable shall be arranged so that strain is taken from clamps and binding screws.

(4) Where the flexible cord or cable passes through a metal or wooden enclosure, a metal bushing shall be provided to protect the cord.

(5) Terminals or binding posts to which flexible cords or cables are connected inside the switchboard enclosure shall be located so as to permit convenient access to them.

**44-322 Wiring to Arc Pockets.** Where the wiring to arc pockets is in rigid metal conduit or electrical metallic tubing, the end of the conduit or tubing shall be exposed at a point approximately 300 millimetres away from the pocket, and the wiring shall be continued in flexible metal conduit in the form of a loop at least 600 millimetres long, with sufficient slack to permit the raising or lowering of the box.

**44-324 Receptacles in Gallery Pockets.** At least one receptacle having a rated capacity of not less than 30 amperes shall be installed in the gallery of theatres where dramatic or operatic performances are staged.

#### **44-326 Receptacles and Plugs**

(1) Receptacles intended for the connection of arc lamps shall:

- (a) Have an ampere rating not less than 35 amperes; and
- (b) Be supplied by conductors not smaller than No. 6 AWG.

(2) Receptacles intended for the connection of incandescent lamps shall:

- (a) Have a rated capacity not less than 15 amperes; and
- (b) Be supplied by conductors not smaller than No. 12 AWG copper or No. 10 AWG aluminum.

(3) Plugs for arc and incandescent receptacles shall not be interchangeable.

**44-328 Curtain Motors.** Curtain motors shall be of the enclosed type.

#### **44-330 Flue-Damper Control**

(1) Where stage flue dampers are released by an electrical device, the circuit operating the device shall, in normal operation, be closed.

(2) The circuit shall be controlled by at least 2 single-pole switches enclosed in metal boxes with self-closing doors without locks or latches.

(3) One switch shall be placed at the electrician's station and the other at a suitable place.

(4) The device shall be:

- (a) Designed for the full voltage of the circuit to which it is connected, no resistance being inserted;
- (b) Located in the loft above the scenery; and
- (c) Enclosed in a suitable metal box with a tight self-closing door.

#### **Portable Stage Equipment**

##### **44-350 Fixtures on Scenery**

(1) Fixtures attached to stage scenery shall be:

- (a) Of the internally wired type; or

(b) Wired with flexible cord or cable approved for hard usage.

(2) The fixtures shall be secured firmly in place.

(3) The stems of the fixtures shall be carried through to the back of the scenery and shall have a suitable bushing on the end thereof.

#### **44-352 String or Festooned Lights**

(1) Joints in the wiring of string or festooned lights shall be staggered where practicable.

(2) Where the lamps of string or festooned lights are enclosed in paper lanterns, or shades or other devices of combustible material, they shall be equipped with lamp guards.

**44-354 Flexible Conductors for Portable Equipment.** Flexible conductors for arc lamps, bunches, or other portable equipment shall be Types S, SO, or ST cord or cable, but for separate miscellaneous portable devices operated under conditions where the conductors are not exposed to severe mechanical injury, reinforced cords Types SV, SVO, SJ, SJO, or SJT may be used provided that they are protected by an overcurrent device rated or set at not more than 15 amperes.

**44-356 Portable Equipment for Stage Effects.** Portable equipment for stage effects shall be of a type acceptable for the purpose and shall be so located that flames, sparks or hot particles cannot come in contact with combustible material.

### **SECTION 46—EMERGENCY SYSTEMS, UNIT EQUIPMENT, AND EXIT SIGNS**

#### **46-000 Scope**

(1) This Section applies to the installation, operation and maintenance of emergency systems and unit equipment intended to supply illumination and to emergency systems intended to supply power, in the event of failure of the normal supply, where required by any governmental or other agency having jurisdiction.

(2) This Section applies to the wiring of exit signs.

(3) The requirements of this Section are supplementary to or amendatory of the general requirements of this Code.

#### **General**

**46-100 Capacity.** Emergency systems and unit equipment shall have adequate capacity and rating to ensure the satisfactory operation of all connected equipment when the principal source of power fails.

**46-102 Maintenance.** Where batteries are used as a source of supply, the batteries shall be kept:

- (a) In proper condition; and
- (b) Fully charged at all times.

**46-104 Arrangement of Lamps**

(1) Emergency lights shall be so arranged that the failure of any one lamp will not leave in total darkness the area normally illuminated by it.

(2) No appliance or lamp, other than those required for emergency purposes, shall be supplied by the emergency circuits.

**46-106 Method of Wiring**

(1) The method of wiring including that between unit equipment and remote lamps shall be in accordance with Section 12.

(2) The wiring shall be kept entirely independent of all other wiring and equipment and shall not enter a fixture, raceway, box, or cabinet occupied by other wiring except where necessary:

- (a) In transfer switches; and
- (b) In emergency lighting fixtures supplied from two sources.

**Emergency Systems**

**46-200 Emergency Systems.** Rules 46-200 to 46-214 apply to emergency systems from central standby supplies only.

**46-202 Supply**

(1) The emergency supply shall be a standby supply consisting of:

- (a) A storage battery of the rechargeable type having sufficient capacity to supply and maintain at not less than 91 per cent of full voltage the total load of the emergency circuits for the time period required by the authority having jurisdiction, but in no case less than half an hour, and equipped with a charging means to maintain the battery in a charged condition automatically; or
- (b) A generator driven by a dependable prime mover.

(2) Automobile batteries and lead batteries not of the enclosed glass-jar type are not considered suitable under Subrule (1) and shall not be used unless their use is lawful under Rule 2-030.

(3) Where a generator is used, it shall be:

- (a) Of capacity sufficient to carry the load; and
- (b) Arranged to start automatically without failure and without undue delay upon the failure of the current supply of the principal equipment of the building.

**46-204 Control**

(1) The current supply for emergency systems shall be controlled by an automatic transfer switch which energizes the emergency system upon failure of the

normal current supply and is accessible only to authorized persons.

(2) An automatic light-actuated device, approved for the purpose, may be used to control separately the lights located in an area that is adequately illuminated during daylight hours without the need of artificial lighting.

**46-206 Overcurrent Protection**

(1) No device capable of interrupting the circuit, other than the overcurrent device for the current supply of the emergency system, shall be placed ahead of the branch circuit overcurrent devices.

(2) The branch circuit overcurrent devices shall be accessible only to authorized persons.

**46-208 Audible and Visual Trouble-Signal Devices**

(1) Every emergency system shall be equipped with audible and visual trouble-signal devices which give warning of derangement of the current source or sources and which indicate when the emergency load is supplied from batteries or generators.

(2) Audible trouble signals may be wired so that:

- (a) They can be silenced, but a red warning or trouble light shall continue to provide the protective function; and
- (b) When the system is restored to normal, the audible signal will:
  - (i) Sound, thus indicating the necessity of restoring the silencing switch to its normal position; or
  - (ii) Reset automatically so as to sound for any subsequent operation of the emergency system.

**46-210 Remote Lamps.** Lamps may be mounted at some distance from the current supply which feeds them, but the voltage drop in the wiring feeding such lamps shall not exceed 5 per cent of the applied voltage.

**Unit Equipment**

**46-300 Unit Equipment.** Rules 46-302 to 46-306 inclusive apply to individual unit equipment for emergency lighting only.

**46-302 Mounting of Equipment.** Each unit equipment shall be mounted with the bottom of the enclosure not less than 2 metres above the floor wherever practicable.

**46-304 Supply Connections**

(1) Receptacles to which unit equipment is to be connected shall be not less than 2.5 metres above the floor, where practicable, and shall be not more than 1.5 metres from the location of the unit equipment.

(2) Unit equipment shall be permanently connected to the supply if:

- (a) The voltage rating exceeds 250 volts; or
- (b) The marked input rating exceeds 24 amperes.

(3) Where the ratings in Subrule (2) are not exceeded, the unit equipment may be connected using the flexible cord and attachment plug supplied with the equipment.

(4) Unit equipment shall be:

- (a) Installed in such a manner that it will be automatically actuated upon failure of the power supply to the normal lighting in the area covered by that unit equipment; and
- (b) Fed where practicable from the same panel-board, and may be fed from the same branch circuit which feeds the normal lighting in the area covered by that unit equipment.

#### 46-306 Remote Lamps

(1) The circuit conductors to remote lamps shall be of such size that the voltage drop does not exceed 5 per cent of the marked output voltage of the unit equipment; or such other voltage drop for which the performance of unit equipment is certified when connected to the specific remote lamp being installed.

(2) Remote lamps shall be acceptable for the purpose and shall be included in the list of lamps provided with the unit equipment.

(3) The number of lamps connected to a single unit equipment shall not result in a load in excess of the watts output rating marked on the equipment for the emergency period, and the load shall be computed from the information in the list of lamps referred to in Subrule (2).

#### Exit Signs

#### 46-400 Exit Signs

(1) The power supply for exit signs shall be provided from:

- (a) A separate circuit, or circuits, used for no other purpose; or
- (b) The circuit supplying exit lighting.

(2) Exit signs shall be wired in accordance with Section 12.

### SECTION 48—MOTION PICTURE STUDIOS, PROJECTION ROOMS, FILM EXCHANGES INCLUDING FILM-VAULTS AND STORE HOUSES FOR PYROXYLIN PLASTIC AND NITROCELLULOSE X-RAY AND PHOTOGRAPHIC FILM

#### 48-000 Scope

(1) This Section applies to:

- (a) Motion picture studios, projection rooms, exchanges, factories and laboratories; and
- (b) Any building or portion of a building in which motion picture films, pyroxylin plastic and nitrocellulose X-ray and photographic films are manufactured, projected, developed, printed, rewound, repaired or stored;

and is supplementary to or amendatory of the general requirements of this Code.

(2) This Section does not apply where only slow-burning (cellulose-acetate or equivalent) film is used.

**48-002 Wiring Method.** The wiring method, unless specified otherwise in this Section, shall be rigid conduit, steel electrical metallic tubing, or mineral-insulated cable, except that portable cables or flexible cord may be used on studio stages and other locations where fixed wiring methods are impracticable.

**48-004 Lamp Outlets.** Lamp outlets on walls shall consist of lampholders mounted in outlet boxes and equipped with open-end guards securely fastened to the cover of the box.

**48-006 Pendent Lamps.** Pendent lamps shall be suspended by means of reinforced cord, armoured cord or armoured cable, and shall be protected by guards or metal shades.

**48-008 Portable Lamps.** For portable lamps other than those used as properties in a motion picture set on a studio stage or similar location, the lampholders shall be:

- (a) Unswitched;
- (b) Of composition or metal-sheathed porcelain; and
- (c) Provided with a guard hook and handle.

**48-010 Flexible Cords.** Type S, SO or ST cord shall be used on portable lamps and equipment.

**48-012 Patching Table Fixtures.** At film-patching tables all lighting fixtures, except lamps forming an integral part of patching table equipment, shall be of the totally-enclosed gasketed type.

**48-014 Motors and Generators.** Motors and generators having brushes or sliding contacts, other than those used on studio stages shall be of approved dust-tight or enclosed types.

**48-016 Storage Batteries.** Storage batteries shall comply with the requirements of Rules 26-540 to 26-554.

**48-018 Pyroxylin Plastic Storage Rooms.** In rooms used for the storage of pyroxylin plastic no receptacle or attachment plugs shall be installed.

#### Film-Vaults

**48-020 Equipment in Film-Vaults.** No electrical equipment other than that necessary for fixed lighting shall be installed in film-vaults.

**48-022 Film-Vaults Wiring Method**

(1) The wiring method in film-vaults shall be rigid conduit or mineral-insulated cable only, with threaded joints at couplings, boxes and fittings.

(2) Conduit or cable shall not run directly from vault to vault, but only from the switch to the lighting fixture within the vault.

(3) Conduit shall be sealed off near the switch enclosure with a fitting and compound approved for the purpose.

**48-024 Film-Vault Lighting Fixtures**

(1) Lighting fixtures in film-vaults shall be of the explosion-proof type approved for use in Class 1, Group C hazardous locations and shall have metal cages or guards protecting the globes.

(2) The fixtures shall be located as close as practicable to the ceiling so as not to be liable to damage through handling of film containers.

**48-026 Film-Vault Circuits**

(1) Fixtures shall be controlled by a double-pole switch located outside the film-vault.

(2) A red pilot light shall be provided to indicate when the switch is closed and shall be located outside the film-vault.

(3) Wiring shall be arranged so that when the switch is off, all conductors within the film-vault will be dead.

**Motion Picture Projection Rooms**

**48-028 Flexible Cords in Projection Rooms.** Type S, SJ, SO, or ST flexible cords shall be used on portable equipment in motion picture projection rooms.

**48-030 Lamps in Projection Rooms.** Incandescent lamps in projection rooms or booths shall be provided with a lamp guard unless otherwise protected by noncombustible shades or other enclosures.

**48-034 Ventilation.** Exhaust ventilation fans for the projection room shall be controlled from inside the projection room.

**SECTION 52 — DIAGNOSTIC IMAGING INSTALLATIONS****52-000 Scope**

(1) This Section applies to the installation of x-ray and other diagnostic imaging equipment operating at any frequency, and is supplementary to, or amendatory of, the general requirements of this Code.

(2) Nothing in this Section shall be construed as specifying safeguards against direct, stray, or secondary radiation emitted by the equipment.

**52-002 Special Terminology.** In this Section the following definitions apply:

- (a) **Long-time rating**, when applied to x-ray or computerized tomography equipment, means a rating that is applicable for an operating period of 5 minutes or more;
- (b) **Momentary rating**, when applied to x-ray or computerized tomography equipment, means a rating that is applicable for an operating period of not more than 20 seconds.

**52-004 High-Voltage Guarding**

(1) High-voltage parts shall be mounted within metal enclosures that are bonded to ground except when installed in separate rooms or enclosures where a suitable switch shall be:

- (a) Provided to control the circuit supplying diagnostic imaging equipment; and
- (b) Arranged so that it will be in an open position except when the door of the room or enclosure is locked.

(2) High-voltage parts of diagnostic imaging equipment shall be insulated from the enclosure.

(3) Conductors in the high-voltage circuits shall be of the shockproof type.

(4) A milliammeter, if provided, shall be:

- (a) Connected, if practicable, in the lead that is bonded to ground; or
- (b) Guarded if connected in the high-voltage lead.

**52-006 Connections to Supply Circuit**

(1) Permanently connected diagnostic imaging equipment shall be connected to the power supply by means of a wiring method meeting the general requirements of this Code except that apparatus properly supplied by branch circuits not larger than a 30 ampere branch circuit may be supplied through a suitable plug and hard usage cable or cord.

(2) Mobile diagnostic imaging equipment of any capacity may be connected to its power supply by suitable temporary connections and hard usage cable or cord.

**52-008 Disconnecting Means**

(1) A disconnecting means of adequate capacity for at least 50 per cent of the input required for the momentary rating or 100 per cent of the input required for the long-time rating of x-ray or computerized tomography equipment, whichever is greater, shall be provided in the supply circuit.

(2) A disconnecting means of adequate capacity shall be provided in a location readily accessible from the radiation control.

(3) For apparatus requiring a 120 volt branch circuit fused at 30 amperes or less, a plug and receptacle of proper size shall be permitted to serve as a disconnecting means.

#### 52-010 Transformers and Capacitors

(1) Transformers and capacitors forming a part of diagnostic imaging equipment shall not be required to conform to the requirements of Section 26 of this Code.

(2) Capacitors shall be provided with an automatic means for discharging and grounding the plates whenever the transformer primary is disconnected from the source of supply, unless all current-carrying parts of the capacitors and of the conductors connected therewith are:

- (a) At least 2.5 metres from the floor, and are inaccessible to unauthorized persons; or
- (b) Within metal enclosures that are bonded to ground or with enclosures of insulating material if within 2.5 metres of the floor.

#### 52-012 Control

(1) For stationary equipment, the low-voltage circuit of the step-up transformer shall contain an overcurrent device which:

- (a) Has no exposed live parts; and
- (b) Protects the radiographic circuit against fault conditions under all operating conditions; and
- (c) Is installed as a part of the equipment or adjacent thereto.

(2) Where in Subrule (1) the design of the step-up transformer is such that branch fuses having a current rating lower than the current rating of the overcurrent device are required for adequate protection for fluoroscopic and therapeutic circuits, they shall be added for protection of these circuits.

(3) For portable equipment, the requirements of Subrules (1) and (2) shall apply but the overcurrent device shall be located in or on the equipment except that no current limiting device is required when the high-voltage parts are within a single metal enclosure that is provided with a means for bonding to ground.

(4) Where more than one piece of equipment is operated from the same high-voltage circuit, each piece or group of equipment, as a unit, shall be provided with a high-voltage switch or equivalent disconnecting means.

**52-014 Bonding.** Non-current-carrying parts of tube stands, tables, and other apparatus shall be bonded to ground in conformity with the requirements of Section 10.

#### 52-016 Ampacity of Supply Conductors and Rating of Overcurrent Protection

(1) The ampacity of supply conductors and the rating of overcurrent protection devices shall not be less than:

- (a) The long-time current rating of x-ray or computerized tomography equipment; or
- (b) 50 per cent of the maximum momentary current rating required by x-ray or computerized tomography equipment on a radiographic setting.

(2) The ampacity of conductors and the rating of overcurrent protection devices for two or more branch circuits supplying x-ray or computerized tomography units shall not be less than:

- (a) The sum of the long-time current rating of all x-ray or computerized tomography units which are intended to be operated at any one time; or
- (b) The sum of 50 per cent of the maximum momentary current rating for x-ray or computerized tomography equipment on a radiographic setting, for the two largest units plus 20 per cent of the maximum current rating of the other units.

### SECTION 56 — OPTICAL FIBRE CABLES

#### Scope

**56-000 Scope.** This Section applies to the installation of optical fibre cables in conjunction with electrical systems and is supplementary to, or amendatory of, the general requirements of this Code.

#### General

**56-100 Special Terminology.** In this Section:

**Optical Fibre Cable** means a cable consisting of one or more optical fibres which transmits modulated light for the purpose of control, signalling or communications.

**56-102 Types.** Optical fibre cables are grouped into the following types:

- (a) Nonconductive cables which contain no metal members and no other electrically conductive materials;
- (b) Conductive cables which contain non-current-carrying conductive members such as metal strength members, metal vapour barriers, or metal sheaths or shields; and
- (c) Hybrid cables which contain both optical fibre cables and current-carrying electrical conductors.

**56-104 Approvals**

(1) Non-conductive and conductive optical fibre cables:

- (a) Placed within buildings shall be of the types as specified in Table 19; and
- (b) Placed outside of building shall be of an acceptable type.

(2) Hybrid cables placed outside of buildings and only containing electrical conductors of a communications, community antenna distribution or radio and television circuit shall be of an acceptable type.

**Installation Methods****56-200 Nonconductive Optical Fibre Cables**

(1) Nonconductive optical fibre cables are not permitted to occupy the same raceway with conductors of electric light, power, or Class 1 circuits unless:

- (a) The nonconductive optical fibre cables are functionally associated with the electric light, power, or Class 1 circuit not exceeding 750 volts; and
- (b) The number and size of nonconductive optical fibre cables and other types of electric conductors in the raceway meet with the applicable requirements for the electrical wiring method.

(2) Nonconductive optical fibre cables are not permitted to occupy the same cabinet, panel, outlet box or similar enclosure housing the electric terminals of an electric light, power or Class 1 circuit unless:

- (a) The nonconductive optical fibre cables are functionally associated with an electric light, power or Class 1 circuit not exceeding 750 volts, and the number and size of optical fibre cables and other types of electric conductors in the enclosure meet with the applicable requirements for the electrical wiring method; or
- (b) The nonconductive optical fibre cables are factory assembled in the enclosure.

(3) Notwithstanding Subrules (1) and (2), non-conductive optical fibre cables are permitted to occupy the same raceway, cabinet, panel, outlet box or similar enclosure with functionally associated electric circuits exceeding 750 volts for industrial establishments where installed and maintained by qualified personnel.

**56-202 Conductive Optical Fibre Cables**

(1) Conductive optical fibre cables are permitted to occupy the same raceway with Class 2 circuits in accordance with Section 16.

(2) Conductive optical fibre cables are not permit-

ted to occupy the same raceway, panel, cabinet, or similar enclosure housing electric light, power, or Class 1 circuits.

(3) Conductive optical fibre cables are not permitted to occupy the same cabinet, panel, outlet box or similar enclosure housing the electrical terminals of a Class 2 circuit unless:

- (a) The conductive optical fibre cables are functionally associated with the Class 2 circuit; or
- (b) The conductive optical fibre cables are factory assembled in the enclosure.

(4) The conductive non-current-carrying members of conductive optical fibre cables shall be grounded in accordance with Section 10.

**56-204 Hybrid Cables**

(1) Optical fibres are permitted within the same hybrid cable for electric light, power or Class 1 circuit conductors not exceeding 750 volts, or within the same hybrid cable for Class 2 circuit conductors, if the functions of the optical fibres and the electrical conductors are associated.

(2) Hybrid cables shall be classed as electrical cables in accordance with the type of electrical circuit in the conductors, and shall be installed in accordance with the Code Rules applicable to the electrical circuit conductors.

**56-206 Penetration of a Fire Separation.** Hybrid optical fibre cables extending through a fire separation shall be installed so as to limit fire spread in accordance with Rule 2-126.

**56-208 Optical Fibre Cables in a Vertical Shaft.** Optical fibre cables in a vertical shaft shall be in a totally enclosed noncombustible raceway.

**56-210 Optical Fibre Cables in Ducts and Plenum Chambers.** Hybrid optical fibre cables shall not be placed in ducts or plenum chambers except as permitted by Rules 12-010 and 2-128.

**56-212 Raceways.** Raceways shall be installed in accordance with the requirements of Section 12.

**56-214 Grounding of Entrance Cables.** Where conductive optical fibre cables are exposed to lightning or accidental contact with electrical light or power conductors, the metal members of the conductive optical fibre cable shall be grounded in the building as close as possible to the point of cable entry.

## SECTION 62—FIXED ELECTRIC SPACE AND SURFACE HEATING SYSTEMS

**Scope****62-000 Scope**

(1) This Section applies to:

- (a) Fixed electric space heating systems for heating rooms and similar areas; and
- (b) Fixed surface heating systems for pipe heating, melting of snow or ice on roofs or concrete or asphalt surfaces, soil heating and similar applications other than space heating.

(2) The requirements of this Section are supplementary to, or amendatory of, the general requirements of this Code.

### General

**62-100 General Rules.** Rules 62-102 to 62-128 apply to both fixed space and surface heating installations.

**62-102 Special Terminology.** In this Section the following definitions apply:

- (a) **"Central unit"** means any heating unit (or group of units assembled so as to form a complete unit) permanently installed in such a way that it can convey heat to rooms or areas using air, liquid, or vapour flowing through pipes or ducts, and includes duct heaters;
- (b) **"Fixture"** means any heating unit (or group of units assembled so as to form a complete unit) permanently installed in such a manner that it can be removed or replaced without removing or damaging any part of the building structure;
- (c) **"Heating cable set"** means a series heating cable set or a parallel heating cable set;
- (d) **"Heating panel"** means a rigid or non-rigid laminated plane section in which the heating element consisting of a continuously parallel resistive material, a series resistive material, or a parallel-series resistive material is embedded between or in sheets of electrical insulating material;
- (e) **"Heating panel set"** means a heating panel together with cold leads or non-heating portion;
- (f) **"Heating unit"** is a general term applying to any form of electrical heating device, and includes cable, fixture, panel and strip system;
- (g) **"Parallel heating cable"** means a cable incorporating heating elements connected in parallel either continuously or intermittently such that the watt density along the length of the cable is not altered by changes in the cable length;
- (h) **"Parallel heating cable set"** means the combination of a parallel heating cable and associated parts necessary to connect it to a source of electrical supply;
- (i) **"Series heating cable"** means a cable using a series resistance conductor(s);

(j) **"Series heating cable set"** means the combination of a series heating cable and a means of connecting it to a source of electrical supply where the combination is assembled by the manufacturer;

(k) **"Sauna heater"** means a device that is designed for heating air and that is installed permanently in a special room to produce a hot atmosphere with generally a relatively low humidity although brief excursions to relatively high humidity may take place.

**62-104 Special Locations.** Heating equipment installed in hazardous locations or where subject to wet or corrosive conditions shall be marked as being suitable for the particular location.

### 62-106 Terminal Connections

(1) Connections to heating equipment shall be made in terminal fittings or boxes, and equipment shall be installed so that connections between circuit conductors and equipment conductors are accessible without disturbing any part of the wiring.

(2) Where the connections of Subrule (1) are made in terminal fittings, they shall be contained in an enclosure of noncombustible material.

(3) Where the temperature at the point of connection between branch circuit conductors and heating unit exceeds 60 degrees Celsius, the branch circuit conductors shall be installed in accordance with Rule 30-410.

### 62-108 Branch Circuits

(1) Branch circuit conductors used for the supply of energy to heating equipment shall:

- (a) Be used solely for such equipment; and
- (b) Have an ampacity not less than that of the connected load supplied; and
- (c) Conductors having insulation suitable for the temperatures encountered shall be used for branch circuits supplying a heating unit.

(2) For the purpose of this Rule an approved unit which combines heating with ventilating or lighting equipment, or both, shall be considered to be heating equipment.

(3) Notwithstanding Subrule (1) where a heat lamp is not the sole source of heat it may be used in a medium-base lampholder acceptable for the purpose where the lampholder is supplied from a general-use branch circuit.

### 62-110 Installation of Fixtures

(1) Fixtures shall be installed so that:

- (a) The proper radiation of heat shall not be obstructed by any portion of the building structure;
- (b) Adjacent combustible material shall not be subjected to temperatures in excess of 90 degrees Celsius.

(2) Where a fixture is recessed in noncombustible material in a building of concrete, masonry or equal noncombustible construction, the noncombustible material may be subjected to temperatures not exceeding 150 degrees Celsius, but the fixture shall be plainly marked as suitable for the service.

(3) Fixtures weighing more than 10 pounds shall be installed so that the wiring connections in the outlet box or its equivalent will be accessible for inspection without removing the fixture supports.

(4) Fixtures weighing more than 25 pounds shall not be supported directly by an outlet box which is mounted on a bar hanger.

(5) Fixtures weighing more than 50 pounds shall be supported independently of the outlet box.

(6) Where fixtures are installed less than 5.5 metres above the floor in an arena, gymnasium, or similar location, where they may be exposed to damage from flying objects, the heating elements shall be of the metal sheathed type or the fixture shall be suitable for the application.

#### 62-112 Fixtures as Raceways

(1) No fixture shall be used as a raceway for circuit conductors unless the fixture is marked for this use.

(2) Notwithstanding Subrule (1), the wiring channel of a baseboard heating unit may be used to contain the wiring for the interconnection of adjacent baseboard units on the same branch circuit if the units are marked for this use.

#### 62-114 Overcurrent Protection and Grouping

(1) Every fixture, cable set, heating panel set or parallel heating set having an input of more than 30 amperes shall be supplied by a branch circuit that supplies no other equipment.

(2) In buildings for residential occupancy, two or more fixtures, cable sets or heating panel sets may be connected to a branch circuit used for space heating, provided that the branch circuit overcurrent devices are rated or set at not more than 30 amperes.

(3) In other than buildings for residential occupancy:

- (a) Two or more fixtures, cable sets, heating panel sets or parallel heating sets may be grouped on a branch circuit, and the branch circuit overcurrent devices shall not be set or rated in

excess of 60 amperes or such greater amperage as is lawful under Rule 2-030;

- (b) Where three fixtures, cable sets, heating panel sets or parallel heating sets are grouped on a branch circuit in a balanced 3-phase arrangement, the branch circuit overcurrent devices may be set or rated in excess of 60 amperes.

(4) Where two or more fixtures, cable sets, heating panel sets or parallel heating sets are grouped on a single branch circuit, the non-heating leads of cable sets and taps to cable sets, fixtures and strip systems shall:

- (a) Have an ampacity not less than one-third the rating of the branch circuit overcurrent device; and
- (b) Be not more than 7.5 metres in length.

(5) Where the heating portion of a cable set is not totally embedded in noncombustible material, the rating or setting of the branch circuit overcurrent devices shall not exceed 15 amperes.

(6) Where a service, or feeder or branch circuit is used solely for the supply of energy to heating equipment, the load, as determined using Rule 62-116, shall not exceed:

- (a) 100 per cent of the rating or setting of the overcurrent devices protecting the service conductors, feeder conductors, or branch circuit conductors when the service box, fusible switch, circuit breaker, or panelboard is marked for continuous operation at 100 per cent of the ampere rating of its overcurrent devices; or
- (b) 80 per cent of the rating or setting of the overcurrent devices protecting the service conductors, feeder conductors, or branch circuit conductors when the service box, fusible switch, circuit breaker, or panelboard is marked for continuous operation at 80 per cent of the ampere rating of its overcurrent devices.

(7) Service, feeder, or branch circuit conductors supplying only fixed resistance heating loads shall be permitted to have an ampacity less than the rating or setting of the circuit overcurrent protection provided that their ampacity:

- (a) Is not less than the load; and
- (b) Is at least 80 per cent of the rating or setting of the circuit overcurrent protection.

(8) Notwithstanding Paragraph (7)(b), where 125 percent of the allowable ampacity of a conductor does not correspond to a standard rating of the overcurrent device, the next higher standard rating shall be permitted.

**62-116 Demand Factors for Service Conductors and Feeders**

(1) Where service conductors or feeders are used solely for the supply of energy to heating equipment they shall have an ampacity of not less than the sum of the current ratings of all the equipment they supply.

(2) Notwithstanding Subrule (1), where a heating installation in buildings for residential occupancy is provided with automatic thermostatic control devices in each room or heated area the ampacity of service conductors or feeders supplying heating equipment only shall be based on the following:

- (a) The first 10 kilowatts of connected heating load at 100 per cent demand factor; plus
- (b) The balance of the connected heating load at 75 per cent demand factor.

(3) Where service conductors or feeders supply a combined load of heating and other equipment, they shall have an ampacity consisting of:

- (a) In the case of buildings for residential occupancy, the sum of the heating load as computed by Subrule (2) plus the combined loads of other equipment with demand factors as applicable in Section 8; or
- (b) In the case of other occupancies, 75 per cent of the total connected heating load plus the combined loads of the other equipment with demand factors as applicable in Section 8 for the type of occupancy.

(4) Notwithstanding Paragraph (3)(b), where the combined loads with applicable demand factors of other than heating equipment is less than 25 per cent of the connected heating load on a service or feeder no demand factor shall be applicable to the heating portion of the load, but in no case shall the resultant demand be less than the connected heating load.

**62-118 Temperature Control Devices**

(1) Temperature control devices rated to operate at line voltage shall have a current rating at least equal to the sum of the current ratings of the equipment they control.

(2) Temperature control devices which can be turned automatically or manually to a marked "OFF" position and which either interrupt line current directly or control a contactor or similar device which interrupts line current shall open all ungrounded conductors of the controlled heating circuit when in the "OFF" position.

(3) Where the liquid to be heated is a fuel or other flammable product, temperature controls shall be installed to ensure that the liquid temperature does not exceed the minimum flash point of the liquid.

**62-120 Construction of Series Heating Cable Sets.** Series heating cable sets shall be complete assemblies including both the heating portion and the non-heating end leads and shall have permanent markings as required, located on one or both of the non-heating leads not more than 75 millimetres from the supply end of a non-heating lead.

**62-122 Installation of Series Heating Cable Sets**

(1) The heating portion of a series heating cable set shall not be shortened and any series heating cable set which does not bear its original markings shall be considered to have been shortened and will be rejected unless the installer can prove to the satisfaction of the inspection department, by instrument measurements, that the characteristics of the series heating cable set have not been altered.

(2) The entire length of the heating portion, including connections to nonheating leads, shall be installed within the heating area.

(3) Series heating cable sets shall be installed so that the temperature on any part will not exceed 90 degrees Celsius except as permitted in Rule 62-304(1).

(4) The heating portions of series heating cable sets shall not be run closer than 200 millimetres to any outlet to which a lighting fixture or other heat-producing equipment is liable to be connected.

(5) Where series heating cable sets without metal shields or sheaths are installed, metal structures or materials used for the support of such series heating cable sets shall be bonded to ground.

(6) Where a series heating cable set is liable to accidental contact with conductive material which is not effectively bonded to ground, the heating portion of the series heating cable set shall have a metal shield or sheath.

(7) Metal shields and sheaths of series heating cable sets shall be bounded to ground.

**62-124 Field-Assembled Series Heating Cable Sets for Embedding in Concrete Indoors (see Appendix B)**

(1) Heating cables for embedding in concrete indoors shall be Type 1B, as specified in Table 60, and so marked.

(2) Notwithstanding Rules 62-120 and 62-122(1), series heating cable sets forming part of a heating cable system for embedding in concrete indoors and approved for assembly at the time of installation may be so installed.

(3) The electrical rating of the series heating cable sets referred to in Subrule (1) shall be marked in the junction box provided as part of the system and which encloses the connection between the branch circuit conductors and the non-heating end leads.

(4) Notwithstanding Rules 62-126 and 62-218(2), the series heating cable sets referred to in Subrule (1) may, subject to the conditions of approval, be installed with the joint between the heating portion and the non-heating end leads in the supply junction box forming part of the system, provided that the heating portion is contained with a raceway between the point where it leaves the concrete and enters the box.

#### **62-126 Non-heating End Leads of Series Heating Cable Sets and Heating Panel Sets**

(1) The non-heating end leads of series heating cable sets and heating panel sets shall be installed in accordance with the requirements of Section 12 for the type of conductors employed.

(2) Where the heating element of a series heating cable set is embedded in a concrete or similar floor the non-heating end leads if not of the metal sheathed type, shall be run from within the concrete to the junction box in rigid conduit, electrical metallic tubing, or other approved raceway, which shall terminate in a horizontal run within the concrete and have a bushing or equivalent fitting to prevent abrasion of the conductors where they emerge.

#### **62-128 Heating Panel and Heating Panel Sets**

(1) Heating panels shall be complete assemblies including terminal fittings.

(2) Heating panel sets shall be complete assemblies including the terminal fittings and the non-heating leads.

(3) The non-heating leads for heating panels or heating panel sets shall be of a type equivalent to the insulated conductors in nonmetallic sheathed cable.

#### **Electric Space Heating Systems**

**62-200 Electric Space Heating.** Rules 62-202 to 62-224 apply to fixed electric space heating systems for heating rooms and similar areas.

**62-202 Temperature Control.** Each enclosed area within which a heater is located shall have a temperature control device.

#### **62-204 Connections to Branch Circuit Conductors**

(1) A cable set or heating panel used for interior space heating shall have non-heating end leads for connection to branch circuit conductors.

(2) For the heating panel referred to in Subrule (1), the non-heating end leads may be attached at the time of installation in accordance with the manufacturer's instructions.

**62-206 Proximity of Other Wiring.** Wiring of other circuits located:

- (a) Above heated ceilings shall be spaced not less than 50 millimetres above the ceiling and shall be considered as operating at an ambient temperature of 50 degrees Celsius unless thermal insulation having a minimum thickness of 50 millimetres is interposed between the wiring and the ceiling;
- (b) In heated concrete slabs shall be spaced not less than 50 millimetres from the heating cables and shall be considered as operating at an ambient temperature of 40 degrees Celsius.

#### **62-208 Installation of Central Units**

(1) Central units shall be installed so that there is reasonable accessibility for repair and maintenance.

(2) Central units shall be installed:

- (a) In an area which is large compared with the physical size of the unit unless specifically approved for installation in an alcove or close; and
- (b) So as to comply with the clearances from combustible materials as specified on the nameplate.

**62-210 Wattage of Heating Panels and Panel Sets.** The heating portion of the heating panels and panel sets when in contact with gypsum board or plaster lath, or when embedded in plaster, as per manufacturer's installation instructions and Rule 62-214, shall not have a watt density such that it will produce an exposed ceiling surface temperature in excess of the limiting temperature of the ceiling finish materials used.

#### **62-212 Location of Heating Panels or Heating Panel Sets**

(1) The heating portion of heating panels or heating panel sets shall not be:

- (a) Installed in or behind any wall surface, nor in any location where it may be subject to mechanical injury either during or after construction; or
- (b) Run through walls, partitions, floors or similar portions of structures.

(2) The heating panels or heating panel sets may be in contact with thermal insulation, but shall not be run in or through thermal insulation.

#### **62-214 Installation of Heating Panels and Heating Panel Sets**

(1) Heating panels and heating panel sets shall be installed in accordance with the manufacturer's instructions.

(2) Field made connections necessary to assemble heating panel sets shall be permitted to be inaccessible providing they are accessible before ceiling finishing materials are applied and the connectors and enclosures are part of heating panel sets.

(3) Subject to the temperature limitations of the particular application heating panels or heating panel sets shall be installed so that the temperature of any part does not exceed its temperature rating.

(4) The heating panels shall be installed parallel to joists or nailing strips.

(5) The heating panels shall be secured to the lower face of joists, headers, or nailing strips.

(6) Nailing or stapling of the heating panels to the ceiling shall be done only through the unheated strips provided for this purpose.

(7) Heating panels shall not be cut through or nailed through any point closer than  $\frac{1}{4}$  inch to the element.

(8) The ceiling finish material shall be secured so that nails or other fastenings do not pierce the heating panels.

(9) The heating portion of the heating panels shall not be installed closer than 200 millimetres to any outlet to which a lighting fixture or other heat producing equipment is liable to be connected.

(10) Heating panels shall not be installed above cupboards, walls or other obstructions.

(11) Branch circuits supplying heating panels and/or heating panel sets shall be marked by a warning label supplied by the heating panel or heating panel set manufacturer and affixed to the panelboard by the installer, stating that the ceiling supplied by the branch circuit is electrified (or contains live wiring) and should not be penetrated by nails, screws or similar devices.

**62-216 Heating Cable Sets in Ceilings.** Heating cable sets installed in ceilings shall be Type 1A, as specified in Table 60, and so marked.

#### **62-218 Series Heating Cable Sets in Cement or Plaster Ceilings**

(1) Series heating cable sets installed in cement or plaster shall be secured in place on the undercoat, gypsum board or plaster lath at not over 600 millimetre intervals by acceptable fastening devices suitable for the temperature involved, and of such nature as not to damage the cable.

(2) The entire length of the heating portion including the connections to the non-heating leads, shall be completely embedded in noncombustible material.

(3) Where series heating cable sets are installed in

plastered ceilings, the plaster shall be a thermally non-insulating sand plaster, or equivalent, having a nominal thickness of not less than 13 millimetres.

#### **62-220 Series Heating Cable Sets in "Dry-Board" Installations**

(1) For "dry-board" installations the cable shall be installed parallel to the joist or nailing strips, leaving a clear space of not less than 25 millimetres wider than the width of the lower face of the joist, header or nailing strip, between centres of adjacent cable runs.

(2) Crossing of joists by cable shall be done only at the ends of the joists or such other location as is lawful under Rule 2-030.

(3) After the heating cable is installed;

(a) The entire ceiling below the cable shall be covered with gypsum board not exceeding 13 millimetres in thickness; and

(b) The voids between the upper layer of gypsum board and the surface layer of gypsum board shall be filled with thermally conducting plaster or other suitable material; and

(c) The surface layer of gypsum board shall be mounted so that the nails or other fastenings do not pierce the heating cable.

#### **62-222 Wattage Rating and Spacing of Series Heating Cable Sets**

(1) Series heating cable sets, when in contact with gypsum board or plaster lath, or when embedded in plaster or sand which is in contact with gypsum board or plaster lath, shall not:

(a) Have a rating in excess of 9 watts per metre of the heating portion; and

(b) Be spaced closer than on 50 millimetres centres.

(2) Series heating cable sets, when embedded in concrete or poured masonry, shall not:

(a) Have a rating in excess of 65 watts per metre of heating portion, unless not adjacent heating cable is closer than 450 millimetres when up to 100 watts per metre may then be used; and

(b) Be spaced closer than 25 millimetres on centres; and

(c) Have watts per square metre in excess of 430 watts.

**62-224 Location of Series Heating Cable Sets.** The heating portions of series heating cable sets shall not be:

(a) Installed in or behind any wall surface, nor in any other location where they may be subject

- to mechanical injury either during or after construction; or
- (b) Installed in, nor concealed behind any surface having wood lath, wood panelling, or similar combustible material; or
- (c) Run through walls, partitions, floors or similar structure; or
- (d) Run in or through any thermal insulation.

### Electric Surface Heating Systems

#### 62-300 Electric Surface Heating

(1) Rules 62-302 to 62-314 apply to fixed surface heating system for pipe heating, melting of snow or ice on roofs or concrete or asphalt surfaces, soil heating and similar applications other than space heating.

(2) Heating cable sets installed in accordance with Rules 62-302 to 62-314 shall be Types 2A, 2B, 2C, 2D, 2E, 3A, 3B, 3C or 3D, as specified in Table 60, and so marked.

#### 62-302 Installation of Fixtures

- (1) If located so as to be exposed to rainfall, fixtures shall be provided with a weatherproof enclosure.
- (2) All exposed metal surfaces of fixtures shall be bonded to ground.

#### 62-304 Installation of Heating Units, General

(1) Heating units shall be installed so that adjacent materials will not be subjected to temperatures in excess of 90 degrees Celsius or such higher temperature as is lawful under Rule 2-030 if the heating units are approved for such higher temperature.

(2) No heating unit shall be installed closer than 13 millimetres to any exposed combustible surface unless the cable has a metal shield or sheath and is provided with a positive temperature control which will limit the surface temperature of the heating units to a value not exceeding 72 degrees Celsius.

#### 62-306 Series Heating Cable Sets and Heating Panel Sets Installed Below the Heated Surface

(1) Series heating cable sets and heating panel sets installed outdoors under the surface of driveways, sidewalks, and similar locations shall:

- (a) Have a metal shield or sheath over the heating portion;
- (b) Be surrounded by noncombustible material throughout their length, including the point of connection to the non-heating leads;

(c) When embedded in concrete be embedded to a depth of at least 50 millimetres the concrete being reinforced except in sidewalks, and have a minimum depth of 150 millimetres where subject to vehicular traffic, or 100 millimetres where not subject to vehicular traffic;

(d) When embedded in asphalt:

(i) Be embedded:

(A) At least 25 millimetres after first being covered with iron or steel mesh not less than No. 10 gauge or greater than 100 millimetres mesh; or

(B) At least 25 millimetres after first being fastened securely to an asphaltic or equivalent base slab not less than 25 millimetres thick at intervals not exceeding 750 millimetres; and

(ii) Be installed so that adjacent runs of cable are 150 millimetres or less apart, and be rated at not more than 82 watts per metre; and

(iii) Be located not less than 300 millimetres from the edge of the driveway where no curbs are provided; and

(iv) Be supported on a substantial base of concrete or well-compacted crushed stone at least 150 millimetres deep.

(2) Nonmetallic series heating cable sets and heating panel sets installed indoors shall be not less than 25 millimetres from any uninsulated metal bodies located below the surface to be heated.

(3) Where heating cables do not have a metal sheath or shield, all uninsulated metal located at or below the surface to be heated shall be bonded to ground.

#### 62-308 Heating Cable Sets Installed on or Wrapped Around Surfaces

(1) Heating cable sets installed on or wrapped around surfaces shall be secured in place by suitable fastening devices which will not damage the heating unit, and which are suitable for the temperature involved.

(2) Heating cable sets wrapped over valves or expansion joints in pipes shall be installed in such a manner as to avoid damage when movement occurs at these areas.

#### 62-310 Parallel Heating Cable Sets

(1) Parallel heating cable sets shall be assembled and installed in accordance with the manufacturer's instructions.

(2) Branch circuits used to supply energy to parallel heating cable sets shall have a nominal voltage rating of 600 volts or less.

(3) Metal structures or materials used for the support of, or on which parallel heating cable sets are installed, shall be bonded to ground in accordance with Section 10.

#### **62-312 Heating Cable Sets Installed In or On Nonmetallic Pipes, Ducts, or Vessels**

(1) Heating cable sets intended for use in or on non-metallic pipes, ducts, or vessels shall be installed in accordance with the manufacturer's instructions.

(2) The temperature of the pipe, duct, or vessel shall be controlled by a thermostat or other equivalent means in such a manner that the temperature shall be low enough to eliminate the danger of damage to the pipe, duct or vessel.

(3) Internal heating or pipes, ducts, or vessels shall be limited to those not containing sewage solids, or flammable liquids.

(4) Where the pipes, ducts, or vessels are heated by an internal heating cable set, the heating cable set shall be provided with a non-heating section which shall pass through a suitable gland.

**62-314 Marking.** Pipes, ducts, or vessels with electric heating shall be suitably marked to indicate they are electrically traced if the systems are not readily visible throughout the length.

#### **Other Heating Systems**

#### **62-400 Heating Cable Sets Installed in Pipes, Ducts, or Vessels**

(1) Heating cable sets installed in pipes, ducts, or vessels shall be of a type acceptable for immersion in the liquid to be heated and shall be Type 4A or 4B, as specified by Table 60, and so marked.

(2) Where practicable, heating cable sets installed in pipes, ducts, or vessels shall be secured in place by suitable fastening devices which will not damage the heating cable set.

(3) Where the heating cable set passes through the pipe, duct, or vessel, it shall pass through a suitable gland.

(4) Where a metal raceway is required for the non-heating leads of a heating cable set installed in a pipe, duct, or vessel it shall be installed so that it will not become flooded in the event of the failure of the gland required by Subrule (3).

**62-402 Pipeline Resistance Heating.** Pipeline resistance heating equipment shall conform to the following:

- (a) Voltage applied to the piping shall not exceed 30 volts, and the supply shall be from an isolating type transformer;
- (b) No part of the extra-low-voltage circuit, including the conductors and the piping in the loop used for heating shall be bonded to ground;
- (c) Pipe hangers shall have insulating bushings, or be made of insulating material;
- (d) Pipes shall have a minimum clearance of 100 millimetres from adjacent material, and from each other, except from hangers or supports;
- (e) Where pipes pass through walls, floors, or ceilings, they shall be bushed with insulating bushings or have 100 millimetres of clearance as required in Paragraph (d);
- (f) Vertical runs shall be supported every 6 metres or at each floor, whichever distance is less, with insulating hangers, and shall be firestopped at each floor;
- (g) Horizontal runs shall be supported every 3 metres at least;
- (h) Pipes used as heating elements shall be electrically insulated, and guarded, or shielded;
- (i) Pipes shall be protected from mechanical damage or installed in such a manner that the building beams or framing provide mechanical protection;
- (j) All pipes used for conductors in the electrical circuit shall be of the same diameter and of the same material;
- (k) Joints shall be at least as electrically conductive as the adjacent piping such as provided by welding or bonding.

#### **62-500 Heaters for Sauna Rooms**

(1) Heaters for sauna rooms shall be marked as being suitable for the purpose.

(2) Sauna heaters shall be installed in rooms that are built in accordance with the nameplate size specifications and shall be fastened securely in place to ensure that the minimum safe clearances indicated on the nameplate are not reduced.

(3) Each sauna heater shall be controlled by a thermostat or other temperature regulating device installed in accordance with the manufacturer's instructions.

(4) Sauna heaters shall not be installed below shower heads or water spray devices.

(5) Each sauna heater shall be controlled by a timed

cut-off switch, having a rating suitable for the application, and having a maximum time setting of one hour with no override feature, which switch shall be mounted on the outside wall of the room containing the sauna heater, and connected so as to be capable of disconnecting all ungrounded conductors in the circuit supplying the heater.

## SECTION 66—AMUSEMENT PARKS—MIDWAYS—CARNIVALS TRAVELLING SHOWS

### Scope and Application

#### 66-000 Scope

(1) This Section applies to the installation of electrical equipment for amusement parks, midways, carnivals and travelling shows and is supplementary to, or amendatory of the general requirements of this Code.

**66-002 Special Terminology.** In this Section the following definitions apply:

- (a) "Amusement ride" means a device or combination of devices designated or intended to entertain or amuse people by physically moving them;
- (b) "Amusement Park" means a tract of land used as a temporary or permanent location for amusement rides and structures;
- (c) "Concession" means a structure, or a combination of structures erected for the purpose of entertaining or amusing people with games or shows and for the dispensing of food, souvenirs and tickets.

### General

#### 66-100 Supporting of Conductors

(1) Only decorative lighting, signal, communication, and control circuits shall be supported on structures that support amusement rides.

(2) The decorative lighting and control circuits of one amusement ride shall not be installed on a supporting structure of another ride.

(3) Overhead conductors shall have a vertical clearance to finished grade of not less than the following:

- (a) Across highways, streets, lanes and alleys 5.5 metres;
- (b) Across areas accessible to vehicles 5 metres;
- (c) Across areas accessible to pedestrians 3.5 metres.

**66-102 Protection of Electrical Equipment.** Mechanical protection of electrical equipment must be

acceptable for the conditions of use for the particular location.

### Grounding

**66-200 Grounding.** The service and electrical distribution shall be grounded in accordance with Section 10 of this Code.

#### 66-202 Equipment Bonding

(1) Exposed non-current carrying metal parts of fixed electrical equipment such as motor frames, starters and switch boxes; parts of rides, concessions and ticket booths and moving electrically operated equipment shall be bonded to ground by:

- (a) means of the bonding conductor in the supply cord; or
- (b) means of a separate insulated flexible No. 6 AWG copper bonding conductor.

(2) Cord connected operator controlled remote stations shall be bonded to ground.

### Services and Distribution

#### 66-300 Service Equipment

(1) Service equipment shall be of a size suitable for the connected load;

(2) Where accessible to unauthorized persons enclosures for service equipment shall be capable of being locked.

**66-302 Mounting of Service Equipment.** Service equipment shall be mounted on a solid backing and:

- (a) be located so as to be protected from the weather;
- (b) be installed in a weather proof enclosure; or
- (c) be of weather proof construction.

#### 66-304 Distribution Equipment

(1) Each concession and ride shall be provided with a fused disconnect switch or circuit breaker.

(2) Where accessible to unauthorized persons enclosures for switches, panelboards and splitters shall be capable of being locked.

### Wiring Methods and Equipment

#### 66-400 Wiring Methods

(1) Wiring methods shall be in accordance with Section 12 and suitable for the condition of use.

(2) Cords, cables, conduits and other electrical equipment, shall be protected from physical damage.

(3) Flexible supply cords shall be of the extra hard usage type and:

- (a) provided with strain relief where they enter into enclosures; and
- (b) if exposed to the weather, be of a type suitable for outdoor use.

#### 66-402 Equipment

(1) Lighting streamers shall be made up of extra hard usage outdoor flexible cord with pin type sockets or with pig tail sockets attached to the cord by acceptable means.

(2) Fluorescent fixtures shall not be mounted end-to-end unless they are marked for that purpose.

(3) Incandescent lampholders shall be of the screwbase type.

#### Motors

**66-500 Motors.** Motors, including the protection and control for the motors, shall be installed in accordance with Section 28.

**66-502 Location.** Motors shall be installed only in dry locations unless they are of a type specifically marked for other locations.

**66-504 Portable Motors.** Connections to portable motors are permitted to be made with flexible cord which shall have a serviceability not less than Type SOW for outdoor use.

### SECTION 68—POOLS, TUBS AND SPAS

#### Scope

#### 68-000 Scope

(1) This Section applies to:

- (a) Electrical installations and electrical equipment in or adjacent to pools; and
- (b) Non-electrical metal accessories in a pool or within 3 metres of the inside wall of a pool.

(2) A pool is deemed to include:

- (a) Permanently installed and storable swimming pools;
- (b) Hydromassage bathtubs;
- (c) Spas and hot tubs;
- (d) Wading pools;
- (e) Baptismal pools; and
- (f) Decorative pools.

(3) The requirements of this Section are supplementary to, or amendatory of, the general requirements of this Code.

#### General

**68-050 Special Terminology.** In this Section the following definitions shall apply:

- (a) "Permanently installed swimming pool" means a pool constructed in such a manner that it cannot be disassembled for storage;
- (b) "Storable swimming pool" means a pool constructed in such a manner that it may be readily disassembled for storage and reassembled to its original integrity;
- (c) "Forming shell" means a structure intended for mounting in a swimming pool structure to support a wet-niche luminaire assembly;
- (d) "Wet-niche luminaire" means a luminaire intended for installation in a forming shell mounted in a pool structure where the luminaire will be completely surrounded by pool water;
- (e) "Dry-niche luminaire" means a luminaire intended for installation in the wall of the pool in a niche which is sealed against the entry of pool water by a fixed lens;
- (f) "Spa" or "hot tub" means a pool or tub designed for the immersion of persons in heated water circulated in a closed system incorporating a filter, heater, pump, and with or without a motor driven blower but not intended to be filled and drained with each use;
- (g) "Hydromassage bathtub" means a permanently installed bathtub having an integral or remote water pump or air blower, and having a fill and drain water system, and includes therapeutic pools;
- (h) "Leakage current collector" means a section of corrosion-resistant metal tubing at least five times as long as its diameter, provided with a brazed or welded copper lug; all placed in a run of nonmetallic pipe to provide a path to ground for leakage current originating from devices in contact with pool water;
- (i) "Decorative pool" means a pool that could be used as a wading pool, that is larger than 1.5 metres in any dimension, and that is readily accessible to the public.

**68-052 Electrical Wiring or Equipment in Pool Walls or Water.** Electrical wiring or equipment shall not be installed in the walls nor in the water of pools except as permitted by this Section.

**68-054 Overhead Wiring**

(1) No pool shall be placed under or near overhead wiring and no overhead wiring shall be placed over or near a pool unless the installation complies with the requirements of this Rule.

(2) There shall not be any overhead wiring above the pool, diving structure, observation stand, tower or platform, or above the area extending 3 metres horizontally from the pool edge except as permitted by Subrules (3) and (4).

(3) Insulated communication conductors, communication antenna distribution conductors, and neutral supported cables not exceeding 750 volts shall be permitted to be located over a pool, diving structure, observation stand, tower, or platform, or above the area extending 3 metres horizontally from the pool edge, providing there is a clearance (measured radially) of at least 4.5 metres.

(4) Conductors other than those covered by Subrule (3) and operating at not more than 50 kilovolts phase-to-phase shall be permitted to be located above a pool, diving structure, observation stand, tower or platform, or above the area extending 3 metres horizontally from the pool edge, providing there is a clearance (measured radially) of at least 7.5 metres.

**68-056 Underground Wiring.** The horizontal separation between the inside walls of a pool and underground conductors, except for bonding conductors or conductors supplying electrical equipment associated with the pool and protected by a ground fault circuit interrupter, shall be not less than that shown in Table 61.

**68-058 Bonding to Ground**

(1) The metal parts of the pool and of other non-electrical equipment associated with the pool such as piping, pool reinforcing steel, ladders, diving board supports, and fences within 1.5 metres of the pool shall be bonded together and to non-current carrying metal parts of electrical equipment such as decorative type pool luminaires and lighting equipment not located in a forming shell, forming shells, metal screens of shields for underwater speakers, conduit, junction boxes, and the like by a copper bonding conductor.

(2) Pool reinforcing steel shall be bonded with a minimum of four connections equally spaced around the perimeter.

(3) Bonding conductors for pools shall be:

- (a) Not smaller than No. 6 AWG for permanently installed pools and for all in-ground pools; or
- (b) As required by Table 16 for all other pools.

(4) Metal sheaths and raceways shall not be relied upon as the bonding medium and a separate copper

bonding conductor shall be used, except that a metal conduit between a forming shell and its associated junction box are permitted to be used as the bonding medium if the forming shell and junction box are installed in the same structural section.

(5) The bonding conductor from the junction box referred to in Rule 68-060 shall be run to the main distribution panelboard, and if smaller than No. 6 AWG, shall be installed and mechanically protected in the same manner as the circuit conductors.

(6) The bonding conductor in Subrule (4) shall be of copper and not smaller than that required by Table 16, except that the bonding conductor for an in-ground pool shall be not smaller than No. 6 AWG.

(7) Notwithstanding Subrule (1), the metal parts of a pool need not be bonded to ground or to each other where the electrical equipment associated with the pool is:

- (a) Not located within 3 metres of the pool; or
- (b) Suitably separated from the pool by a fence, wall, or other barrier; or
- (c) Approved without a bonding conductor.

**68-060 Junction and Deck Boxes**

(1) Junction boxes are permitted to be submerged in decorative pools provided the boxes are marked for such usage.

(2) Junction boxes installed on the supply side of conduits extending to forming shells, referred to hereinafter as deck boxes, shall be specifically approved for the purpose.

(3) Deck boxes shall be provided with a means for independently terminating at least three bonding conductors inside the box and one No. 6 AWG bonding conductor outside the box.

(4) Deck boxes shall not contain the conductors of any circuits other than those used exclusively to supply the underwater equipment.

(5) Deck boxes shall be provided with electrical continuity between every connected metal conduit and the bonding terminals by means of copper, brass, or other corrosion-resistant metal that is integral with the box.

(6) Deck boxes shall be installed:

- (a) Above the normal water level of the pool; and
- (b) So that the top of the box is located at or above the finished level of the pool deck; and
- (c) In such a manner or location that the box will not be an obstacle; and

- (d) In such a manner that any water on the deck will drain away from the box.

(7) Junction boxes and conduit shall be water-tight and provided with a packing seal that will seal around the cord and effectively prevent water from entering the box through the conduit from the forming shell.

#### 68-062 Transformers and Transformer Enclosures

(1) Transformers shall not be located within 3 metres of the inside wall of the pool unless suitably separated from the pool area by a fence, wall, or other permanent barrier which will make the transformer not accessible to persons using the pool area.

(2) A metal shield, if provided between the primary and secondary windings of a transformer, shall be bonded to ground.

(3) Audio isolation transformers shall:

- (a) Be connected between the audio output terminals of each amplifier and any loudspeaker which is located within 3 metres of the pool wall; and
- (b) Be located in or adjacent to the amplifier with which they are used; and
- (c) Have an audio output voltage of not more than 75 volts.

#### 68-064 Receptacles

(1) Receptacles shall not be located within 1.5 metres of the inside walls of the pools.

(2) Receptacles located between 1.5 metres and 3 metres of the inside walls of a pool shall be protected by a ground fault circuit interrupter.

(3) In maintaining the dimensions referred to in this Rule, the distance to be measured is the shortest path which the power supply cord of an appliance connected to the receptacle would follow without piercing a building floor, wall, or ceiling.

#### 68-066 Luminaires and Lighting Equipment

(1) Wet-niche or submersible luminaires shall:

- (a) Except for decorative pools, be mounted in forming shells which shall have provision for a suitable connection to the wiring method used;
- (b) Unless specifically approved and marked for submersion at a greater depth, not be submersed in the pool water at a depth of more than 600 millimetres, such distance being measured from the centre of the lens face of the luminaire to the normal water level; and
- (c) Operate with neither the supply voltage to the

luminaire nor its associated ballast or transformer, if applicable, nor the secondary open-circuit voltage of the ballast or transformer exceeding 150 volts during either starting or operating conditions.

(2) Where dry-niche luminaires are installed so as to be accessible from a walkway or a service tunnel outside the walls of the pool or from a closed, drained recess in the walls of the pool, neither the supply voltage to the fixture nor its associated ballast or transformer shall exceed 300 volts during either starting or operating conditions.

(3) Dry-niche luminaires shall be accessible for maintenance:

- (a) From a service tunnel or walkway outside the walls of the pool; or
- (b) Through a handhole in the deck of the pool to a closed, drained recess in the wall of the pool.

(4) Metal parts of luminaires in contact with the pool water shall be of brass or other suitable corrosion-resistant material.

(5) Luminaires installed below, or within 3 metres of the pool surface or walls, and not suitably separated from the pool area by a fence, wall or other permanent barrier shall be electrically protected by a ground fault circuit interrupter.

(6) Standards or supports for luminaires shall not be installed within 3 metres of the inside walls of a swimming pool unless such luminaires are protected by ground fault circuit interrupters.

(7) Forming shells for lamps supplied from a grounded circuit or a circuit operating at a voltage exceeding 30 volts shall be metal and have provision for a threaded connection to a rigid metal conduit.

#### 68-068 Ground Fault Circuit Interrupters

(1) Except as permitted in Subrule (2), ground fault circuit interrupters required by the Rules of this Section shall be of the Class A type.

(2) Where ground fault circuit interrupters of the Class A type are not available due to rating, the equipment is permitted to be protected by a ground fault circuit interrupter which will clear a ground fault within the time specified for a Class A type interrupter.

(3) Ground fault circuit interrupters shall be permanently connected.

(4) Ground fault circuit interrupters are permitted to be applied to a feeder, a branch circuit, or an individual device.

(5) A warning sign shall be located beside the switches controlling circuits electrically protected by

ground fault circuit interrupters advising that the circuits are so protected and that the equipment shall be tested regularly.

(6) Ground fault circuit interrupters shall be installed in a location which will facilitate the testing required in Subrule (5) but not closer than 3 metres to the pool water.

(7) Except as permitted by Rule 68-070, the following equipment shall be protected by a ground fault circuit interrupter:

- (a) Electrical equipment placed in the water in the pool; and
- (b) Audio amplifiers connected to loudspeakers in the pool water; and
- (c) Electrical equipment located within the confines of the pool walls or within 3 metres of the inside walls of the pool and not suitably separated from the pool area by a fence, wall, or other permanent barrier; and
- (d) Receptacles or appliance located in wet areas of a building, and associated with the swimming pool, such as locker and change rooms.

**68-070 Other Electrical Equipment.** Loudspeakers installed beneath the pool surface:

- (a) Shall be mounted in a recess in the wall or floor of the pool and shall be enclosed by a separate, rigid, corrosion-resistant metal screen; and
- (b) Shall be connected to their audio isolating transformers by ungrounded wiring.

#### **Permanently Installed Swimming Pools**

##### **68-100 Wiring Method**

(1) Rigid conduit of copper or other corrosion-resistant metal or rigid PVC conduit, shall be provided between the forming shell of luminaires installed below the pool surface and the junction box referred to in Rule 68-060.

(2) The wiring method between the wet-niche luminaires and the junction boxes referred to in Rule 68-060 shall be flexible cord suitable for use in wet locations and supplied as a part of the luminaire.

(3) Where Subrules (1) and (2) do not apply, any acceptable wiring method specified in Section 12 is permitted to be used.

(4) Conductors on the load side of each ground fault circuit interrupter shall be kept entirely independent of all other wiring which is not so protected and shall not enter a luminaire, raceway, box, or cabinet occupied by other wiring except for panelboards which house the interrupters.

(5) Conduits in the walls and deck of a swimming pool shall be installed so that suitable drainage is provided.

#### **Storable Swimming Pools**

**68-200 Electrical Equipment.** No electrical equipment shall be located in the pool water or on the pool wall unless specifically approved for the purpose.

##### **68-202 Pumps**

(1) Swimming pool pumps shall be:

- (a) Supplied from a permanently installed receptacle located not less than 1.5 metres nor more than 7.5 metres from the pool wall; and
- (b) Protected by a ground fault circuit interrupter if located within 3 metres of the inside walls of the pool and not suitably separated from the pool area by a fence, wall, or other permanent barrier.

(2) Swimming pool pumps located within 3 metres of the pool walls shall be specifically approved for the purpose.

#### **Hydromassage Bathtubs**

**68-300 Protection.** Electrical equipment forming an integral part of a hydromassage bathtub shall be protected by a ground fault circuit interrupter of the Class A type.

##### **68-302 Control**

(1) A hydromassage bathtub shall be controlled by an automatic shut-off timer with an "on" time of not more than 30 minutes.

(2) Electric controls associated with a hydromassage bathtub shall be located behind a barrier or shall be located not less than 1 metre horizontally from the wall of the hydromassage bathtub, unless they are an integral part of an approved factory built hydromassage bathtub.

(3) Subject to Subrule (2) and notwithstanding Subrule 68-068(6), ground fault circuit interrupters shall be permitted to be closer to the pool than 3 metres but not less than 1.5 metres from the pool wall.

**68-304 Other Electric Equipment.** Luminaires, switches, receptacles, and other electrical equipment not directly associated with a hydromassage bathtub shall be installed in accordance with the Rules of this Code covering the installation of that equipment in bathrooms.

#### **Spas and Hot Tubs**

**68-400 General.** Rules 68-402 to 68-408 apply to the installation of spas and hot tubs.

**68-402 Bonding to ground**

(1) Metal parts of spas and hot tubs shall be bonded together and to ground in accordance with Rule 68-058.

(2) Notwithstanding Subrule (1), metal rings or bands used to secure staves of wooden hot tubs need not be bonded.

(3) A copper bonding conductor sized not less than the circuit conductors supplying the equipment shall be connected between the control panel of a spa or hot tub and the consumer's service or distribution panel.

**68-404 Controls and Other Electrical Equipment**

(1) Controls for a spa or hot tub shall be located behind a barrier or shall be located not less than 1.5 metres horizontally from the spa or hot tub, unless they are an integral part of an approved factory built spa or hot tub.

(2) Receptacles shall be installed in accordance with Rule 68-064.

(3) Luminaires shall be installed in accordance with Rule 68-066.

**68-406 Leakage Current Collectors**

(1) Leakage current collectors shall be installed in all water inlets and in all water outlets of a field assembled spa or hot tub so that all water flows through the leakage current collectors.

(2) Leakage current collectors shall be electrically insulated from the spa or hot tub and shall be bonded to the control panel or the main service ground with a copper bonding conductor.

(3) Notwithstanding Subrule (1), leakage current collectors shall not be required in a system in which the only electrical component is a pump marked as an insulated wet end pump.

(4) The bonding conductor for leakage current collectors shall be not smaller than required by Table 16 where the bonding conductors are mechanically protected in the same manner as the circuit conductors, or a minimum No. 6 AWG copper conductor.

**68-408 Field Assembled Units**

(1) Spas and hot tubs field assembled with individual components shall be installed in accordance with Rules 68-400 to 68-406 and Subrules (2) and (3).

(2) Individual components, such as pumps, heaters, and blowers, shall be specifically approved for use with spas or hot tubs.

(3) Air blowers shall be installed above the tub rim, or other acceptable means used to prevent water from contacting blower live parts.

## SECTION 70—ELECTRICAL REQUIREMENTS FOR FACTORY- BUILT RELOCATABLE STRUCTURES AND NON-RELOCATABLE STRUCTURES

**Scope****70-000 Scope**

(1) Rules 70-100 to 70-130 apply to relocatable structures (factory-built) towable on their own chassis, for use without permanent foundations having provision for connection to utilities and include:

- (a) Mobile homes; and
- (b) Mobile commercial and industrial structures.

(2) Rules 70-200 to 70-204 apply to non-relocatable structures (factory built) for use on permanent foundations and include:

- (a) Housing (residential); and
- (b) Commercial and industrial structures.

(3) These Rules do not apply to recreational vehicles covered by CSA Standard CAN/CSA-Z240 RV, Recreational Vehicles.

(4) This Section is supplementary to or amendatory of the general requirements of this Code.

**Relocatable Structures**

**70-100 Equipment.** Electrical components including those connected in Class 1 extra-low-voltage power circuits (e.g. lighting fixtures) and in Class 2 extra-low-voltage circuits shall conform with the requirements of the Canadian Electrical Code Part II and be suitable for the application.

**70-102 Method of Connection**

(1) Subject to the conditions of Subrule (2) of this rule, the method of connection to the supply circuit shall be:

- (a) Connection to an overhead or underground supply;
- (b) Power supply cord set; or
- (c) A length of flexible cord or cable without an attachment plug.

(2) For mobile homes the method of connection to the power supply shall be directly to an overhead or underground supply or such other method as is lawful under Rule 2-030.

**70-104 Connection to an Overhead or Underground Supply**

(1) Where the supply connection is directly to an overhead or underground supply a conduit nipple

or a length of rigid conduit shall be provided and shall:

- (a) Project from the structure through the exterior wall, roof, or floor to permit attachment of a conduit fitting;
- (b) Have a suitable cap on the exposed end;
- (c) Terminate at the disconnecting means, at an intermediate box, or, for other than mobile homes, at the distribution equipment if a disconnecting means is not provided; and
- (d) Be of sufficient size to accommodate copper conductors of a calculated ampacity for the load involved, except:
  - (i) where the structure is specifically designed for connection by conductors other than copper; or
  - (ii) as specified in Subrule (3).

(2) For mobile homes the conduit shall project so that it is readily accessible for power supply connection.

(3) For mobile homes the size of conduit shall not be less than that specified in Table 48.

(4) Where it is intended or it is likely that the system grounding conductor be run separately, a non-metallic raceway shall be installed at the time of manufacture for this purpose.

**70-106 Service for Communication Systems.** All mobile homes shall be provided with a length of metal conduit, 1/2-inch or larger, for use as a communication service which shall:

- (a) Project from the structure a minimum of 75 millimetres through the floor;
- (b) Terminate at least 300 millimetres above the finished floor in a wall or partition in a standard metallic switch or outlet box complete with cover;
- (c) Be bonded to the frame of the mobile home; and
- (d) Have a suitable cap on the exposed end of the conduit stub.

#### **70-108 Power Supply Cord or Cord Set**

(1) Where a power supply cord or cord set is used except as provided for in Subrule (4) the cord shall:

- (a) Be provided as part of the mobile vehicle;
- (b) Have an ampacity not less than the ampere rating of the attachment plug;
- (c) Be of the extra hard usage type suitable for outdoor use as specified in Table 11;

- (d) Have separate identified and grounding conductors;
- (e) Be not less than 7.5 metres in length, as measured from the attachment plug to the point of entrance to the unit;
- (f) If a permanently connected power supply cord, terminate at the main disconnecting means in the unit or at a box in or on the unit, suitable space being provided in the unit for storage of the cord when not in use to protect it from damage; and
- (g) Have a suitable grounding type attachment plug having an ampere rating not less than that of the service conductor ampacity required by Section 8 for applications specified therein, or that for which it is approved for other applications.

(2) Bushings of rubber, unless of an oil-resistant compound, shall not be used where they are so located as to be exposed to mechanical injury.

(3) Where a cord set is used a male receptacle is to be provided on the unit which shall:

- (a) Be of weatherproof construction unless adequately protected or enclosed;
- (b) Have a contact arrangement which will mate with the cord connector on the cord; and
- (c) Have a current rating not less than that of the main overcurrent protection.

(4) A cord or cord set may be used for mobile homes if their use is lawful under Rule 2-030 and,

- (a) Are not smaller than No. 6 AWG;
- (b) Have an attachment plug moulded to the cord with configuration designated as CSA 14-50P (3-pole, 4-wire, 125/250 volt, 50 amperes); and
- (c) Enter where it will not be subject to mechanical damage.

#### **70-110 Disconnecting Means and Main Overcurrent Protection**

(1) Except as provided for in Subrule (2) each structure shall be provided with:

- (a) A service box or a combined service and distribution box located within the structure with provision for grounding the neutral;
- (b) Main overcurrent protection having a current rating at least equal to the minimum ampacity of the consumer's service as determined in accordance with Section 8 but in no case less than 50 amperes for mobile homes and not exceeding the ampacity of the supply conductors actually used except as permitted by Rule 14-104; and

(c) The identified conductor shall be:

- (i) Connected to ground within the mobile structure if a power supply cord or cord set is not provided; or
- (ii) Isolated from ground if a power supply cord or cord set is used.

(2) For other than mobile homes the structure may be provided with distribution equipment in lieu of the type of service equipment listed in Subrule (1) where such service equipment is provided in the supply to the unit.

## 70-112 Location of Service or Distribution Equipment.

Service or distribution equipment shall be:

- (a) Readily accessible;
- (b) Not located in clothes closets unless in its own compartment, in bathrooms, in stairways, or in any similar or undersirable location;
- (c) Within the structure with consideration being given to the possibility of the formation of condensation;
- (d) As close as practicable to the point where the supply conductors enter the structure; and
- (e) Of the circuit-breaker type if in other than extra-low-voltage circuits and if mounted less than 1.5 metres above the floor in which case it shall be protected from mechanical injury.

## 70-114 Wiring Methods—General

(1) The wiring method shall be as specified in Section 12 except where flexible cords are permitted in Rule 70-116 or for Class 2 circuits.

(2) Surfaces against which conductors are in contact shall be smooth and entirely free from sharp edges and burrs which may cause abrasion of the insulation of the conductors;

(3) Where cable is required to be protected from mechanical injury by Rules 12-516, 12-616, and 12-710 plates or tubes of sheet steel of at least No. 16 MSG or the equivalent, secured in place, shall be used to protect the cable from driven nails, screws or staples.

(4) Cable run through holes in joists or studs shall be considered to be secured for purposes of Rules 12-510 and 12-618.

(5) Unless provided with insulation suitable for the highest voltage involved, insulated conductors of low voltage and extra-low voltage circuits shall be separated by barriers, or shall be segregated by clamping, routing, or equivalent means which will ensure permanent separation and shall in any case be so sepa-

rated or segregated from bare live parts of the other circuit.

(6) For purposes of Subrule (5) the jacket of non-metallic sheathed cable shall be considered to be a suitable barrier.

(7) Bare live parts, including terminals of electrical equipment in extra-low-voltage circuits other than Class 2 circuits shall be enclosed in accordance with Rule 2-202 (1).

(8) Conductors for extra-low-voltage Class 2 circuits shall be Type LVT, low-energy safety control cable or equivalent and if protected by fuses, in accordance with Rule 16-200, the fuses shall not be interchangeable with those of higher ratings.

## 70-116 Wiring Methods, Swing-out and Expandable Room Sections

(1) The means used to make electrical connections between a swing-out or expandable room section and the wiring in the main section of the structure shall be located or protected so that there is no likelihood of damage to the interconnecting means when the section is extended or retracted or when the structure is in transit.

(2) A flexible cord or power supply cable shall be used as an interconnecting means where flexibility is involved and shall:

- (a) Be of the extra-hard usage type;
- (b) Have an ampacity suitable for the connected load but in no case be smaller than No. 14 AWG;
- (c) Be of the outdoor type if it has thermoplastic insulation or is exposed to the weather; and
- (d) Incorporate a grounding conductor.

(3) A plug, connector, or fitting used in conjunction with a flexible cord for electrical interconnections shall have an electrical rating suitable for the maximum connected load and if located outside of the mobile home shall be protected from the weather or other adverse conditions (including when the structure is in transit).

## 70-118 Wiring Methods, Multiple Section Mobile Units

(1) Provision shall be made for interconnection of circuits in each section of multiple section units.

(2) The means for interconnection shall be such that no bare live parts of a low-voltage circuit are exposed to accidental contact should any section be temporarily energized before the other sections are in place.

## 70-120 Branch Circuits, Mobile Homes

(1) Circuits other than those referred to in Rules 26-748, 26-752, 26-806, 26-808 and 62-108 supplying permanently connected appliances may have

additional outlets, but not receptacles, provided that these outlets are for fans, stationary lighting fixtures, or similar permanently connected appliances.

(2) The outlets referred to in Subrule (1) shall be considered to have a demand of 1 ampere each, except where the load is known to be greater, and in no case shall the total load exceed 80 per cent of the rating of the overcurrent device protecting the circuit.

(3) Notwithstanding Rule 8-104, a circuit supplying an electric water heater having an input not more than 1,500 watts at 115 volts or 3,000 watts at 230 volts may have overcurrent protection rated or set at 15 amperes.

(4) In determining compliance with Rule 62-108 (2), fans on oil or gas heaters which are not required for the operation of the heaters and are rated not more than 3 amperes, are not required to be on individual branch circuits.

#### 70-122 Receptacles and Switches

(1) In applying Rule 26-702(2), a hallway need not be considered as a room.

(2) The receptacles required by Rule 26-702(6) to be installed at counter or table height shall be located not less than 750 millimetres and not more than 1.2 metres above the floor.

(3) Switches of the pull-type including those for fans and lights shall conform with Rule 30-610.

(4) Where a ceiling mounted, rigid lighting fixture or lampholder is located at a height of less than 2 metres above the floor and is readily accessible, the fixture or lampholder shall be protected from mechanical injury, by a guard or by location.

(5) Notwithstanding Rule 26-702(16), a receptacle installed on the underside of a mobile home, intended for the use of electric heating for plumbing pipes, need not be protected by a ground fault circuit interrupter if the receptacle is located within 600 millimetres of the cold water inlet and at least 900 millimetres from the outside edge of the mobile home.

#### 70-124 Ventilating Fans Used in Kitchen Areas

(1) The motor of any fan installed in the kitchen area above or in the vicinity of cooking equipment and which is located in the air stream shall be of the totally-enclosed type unless specifically approved for this application.

(2) For purposes of Subrule (1) the "area above or in the vicinity of cooking equipment" is:

- (a) That portion of any wall located within 1.2 metres of the cooking surface, as measured from any point on the cooking surface, regardless of the height of such walls; and
- (b) That portion of the ceiling defined by a rectangle having sides parallel to the edges of

the cooking surface and located within 1.2 metres of a vertical projection of the cooking surface, as measured from any point on this projection, regardless of the height of such ceiling.

(3) For purposes of Subrule (2), the "cooking surface" of a built-in oven is the area of a bottom-hinged door of a size required to close the oven opening, when such a door is in the fully-opened (horizontal) position and for a freestanding stove or range (with or without an oven) or a built-in counter top surface element unit, the "cooking surface" is the entire top surface of the unit, including the back-splash (if any).

(4) For the purposes of Subrules (1), (2), and (3) if any full-height wall or partition is located within the space defined above, the space beyond this full height is not included in this restriction.

#### 70-126 Grounding and Bonding

(1) All major exposed metal parts that may become energized, including the water, gas, and waste plumbing, the roof and outer metallic covering, the chassis and metallic circulating air ducts shall be in good electrical contact with one another and with the termination of the grounding conductor of the supply circuit at the disconnecting means for the purpose of grounding and bonding.

(2) The metallic roof and exterior covering shall be considered bonded as required by Subrule (1):

- (a) If the metal panels overlap one another and are securely attached to the wood or metal frame parts by metallic fasteners; and
- (b) If bonded to the chassis by metallic fasteners or by a metal strap.

(3) All exposed non-current carrying metal parts of a swing-out or expandable room section shall be reliably bonded to the exposed non-current carrying metal parts of the main section of the mobile unit.

(4) The grounding conductors of the low voltage wiring system other than the chassis shall not be used to carry current of any extra-low potential circuit.

(5) Grounding and bonding connections and terminals shall be:

- (a) Made of non-ferrous metal or plated steel;
- (b) Used for no other purpose than grounding or bonding except for bonding between the chassis and skin where assembly screws may be used;
- (c) Protected from mechanical injury; and
- (d) Readily accessible for inspection and maintenance.

(6) Bare grounding and bonding conductors shall be located so that there is no danger of contact with live parts but if their location or flexibility is such that separation from live parts is not assured they shall be insulated by taping or sleeving.

(7) A bonding conductor between the chassis and the distribution panel may be insulated or bare and shall:

- (a) Be of copper and be protected from salt spray;
- (b) Be of a size not smaller than that specified in Table 41 for a structure having a rated input current corresponding to the ampere values specified in Column 1 of that Table;
- (c) Be so located that they will not be subject to mechanical injury; and
- (d) Be suitably secured within 300 millimetres of the attachment to the chassis.

(8) Bonding conductors other than those referred to in Subrule (7) shall have adequate ampacity but in no case less than that of a No. 14 AWG copper conductor.

#### 70-128 Marking

(1) Units to which the main power supply connection is made shall be marked in a permanent manner in a place where the details will be readily visible with the following information as required by Rule 2-100.

- (a) Manufacturer's name, trademark, tradename or other recognized symbol of identification;
- (b) Model, style or type designation;
- (c) Nominal voltage of the system to which the unit is to be connected (e.g. 120, 120/240, etc.);
- (d) Rated frequency;
- (e) Rated input current in amperes.

(2) For purposes of Paragraph (e) of Subrule (1) the rated input current in amperes is:

- (a) The ampere rating of the main overcurrent protection, if provided;
- (b) The ampere rating of the distribution equipment, if no main overcurrent protection and no power supply cord are provided; or
- (c) The ampere rating of the attachment plug if provided.

(3) Markings adjacent to the main and branch circuit overcurrent devices shall be provided in accordance with Rule 2-100 (3).

(4) For multiple section mobile homes, or structures, each section shall be suitably and permanently marked to identify the other sections to be used with it to form a single structure.

(5) Unless it is otherwise clearly evident, instructions shall be provided on the main section of multiple section mobile homes or structures to indicate the

interconnections necessary to complete the installation.

#### 70-130 Tests

(1) The following tests shall be performed on the complete assembly at the factory:

- (a) **Continuity.** All circuits, including grounding circuits shall be tested for continuity;
- (b) **Insulation Resistance.** The insulation resistance between live parts and ground at the completion of a one-minute application of a 500 volt dc test voltage shall be not less than that specified in Table 24.

(2) As an alternative to the insulation resistance test specified in Subrule (1) (b), an ac dielectric strength test may be performed, in which case an ac voltage of 900 volts shall be applied for 1 minute (or 1,080 volts for 1 second) between all live parts and non-current carrying metal parts without breakdown occurring.

(3) In performing either the insulation resistance or the dielectric strength test, the neutral shall be disconnected from ground for the test and be re-connected afterwards.

#### Non-Relocatable Structures (Factory Built)

**70-200 General.** Rules 70-100, 70-112, 70-114, 70-118, 70-122, 70-124, 70-126, 70-128 and 70-130 shall also apply to non-relocatable structures.

#### 70-202 Connection to Overhead and Underground Supply

Provision shall be made at the factory for the electricians in the structure to be connected either to an overhead or underground power supply through conduit nipples or equivalent and supports which shall:

- (a) Be of sufficient size to accommodate conductors having the minimum ampacity determined by Section 8 of this Code; and
- (b) Be limited in number to meet the limitations set out in Rules 6-102 and 6-200.

#### 70-204 Service and Distribution Equipment

(1) Provision shall be made at the factory for the installation either at the factory or on the job site of a service box or other approved service equipment in the structure which shall be:

- (a) In a readily accessible location within the building and as close as practicable to the point where the service conductors enter the building; and
- (b) Within the individual units where multiple occupancy residential condominium or row house structures are involved or in a central location accessible to all tenants in all other cases.

(2) Each complete structure shall be provided with distribution equipment.

## **SECTION 72 — MOBILE HOME AND RECREATIONAL VEHICLE PARKS**

### **Scope and Application**

#### **72-000 Scope**

(1) Rules 72-100 to 72-112 apply to services and distribution facilities for mobile home and recreational vehicle parks.

(2) This Section is supplementary to or amendatory of the general requirements of this Code.

### **General**

**72-100 Service.** Each mobile home and recreational vehicle park and/or consumer service shall be provided with service equipment in accordance with the applicable requirements of Section 6 of this Code.

#### **72-102 Demand Factors for Service and Feeder Conductors**

(1) The minimum ampacity of the consumer service and feeder conductors for mobile home parks shall be based on the requirements of Rules 8-200 and 8-202.

(2) The minimum ampacity of the consumer service and feeder conductors in the case of recreational vehicle parks shall be calculated on the basis of the ampere rating of the receptacles and applying the following demand factors:

- (a) 100 per cent of the sum of the first 5 receptacles having the highest ampere ratings; plus
- (b) 75 per cent of the sum of the ampere ratings of the next 10 receptacles having the same or next smaller ratings to those specified in Paragraph (a); plus
- (c) 50 per cent of the sum of the ampere ratings of the next 10 receptacles having the same or next smaller ratings to those specified in Paragraph (b); plus
- (d) 25 per cent of the sum of the ampere ratings of the remainder of the receptacles.

(3) Where 3 wire circuits are involved in the application of Subrule (2) consideration shall be given to the distribution of 2-pole receptacles on each half of the circuit.

**72-104 Feeders.** Feeders between the park consumer's service equipment and the park distribution centres are permitted to be installed in accordance with the applicable requirements for service conductors.

#### **72-106 Overcurrent Devices and Disconnecting Means for Recreational Vehicles**

(1) The circuit for each receptacle for a recreational

vehicle lot shall be preceded by an individual overcurrent device not exceeding the rating of the receptacle involved and by a suitable disconnecting means.

(2) The disconnecting means shall be accessible.

#### **72-108 Overcurrent Devices and Disconnecting Means for Mobile Homes**

(1) The circuit for each mobile home lot shall be preceded by an individual overcurrent device not exceeding the rating of the equipment involved and by a suitable disconnecting means.

(2) All supply facilities for overcurrent devices and disconnecting means for mobile homes shall be within enclosures of weatherproof construction if installed outdoors.

(3) The disconnecting means shall be accessible.

#### **72-110 Connection Facilities for Recreational Vehicles and Mobile Homes**

(1) Where receptacles are installed on recreational vehicle lots, they shall be of the following types:

- (a) A 15 ampere, 125 volt, 2-pole, 3-wire type 5-15R receptacle; or
- (b) A 30 ampere, 125 volt, 2-pole, 3-wire ANSI configuration C73.13-1966 (R1972) receptacle; or
- (c) A 50 ampere, 125/250 volt, 3-pole, 4-wire type 14-50R receptacle.

(2) Each mobile home lot shall have provision for a permanent connection to the mobile unit except that for mobile homes having main overcurrent protection of 50 amperes, a 50 ampere 125/250 volt, 3-pole, 4-wire type 14-50R receptacle may be used if its use is lawful under Rule 2-030.

(3) Receptacles when mounted in other than a horizontal plane shall be oriented so that the U-ground slot is uppermost.

#### **72-112 Power Supply Cords**

(1) Power supply cords may only be used for the connection of recreational vehicles where the cords are not subject to severe physical abuse or extended periods of use.

(2) Power supply cords or cord sets may only be used for the connection of a mobile home if the lot is equipped with a 50 ampere, 3-pole, 4-wire type 14-50R receptacle and the connection is lawful under Rule 2-030.

## **SECTION 74—AIRPORT INSTALLATIONS**

### **74-000 Scope**

(1) This Section applies to the installation of runway, taxiway, and approach lighting and wiring.

(2) The requirements of this Section are supplementary to or amendatory of the general requirements of this Code.

**74-002 Special Terminology.** In this Section the following definitions apply:

- (a) "Ground counterpoise" means a grounding conductor installed over lighting cables for the purpose of interconnecting the system ground electrodes and providing lightning protection for the cables;
- (b) "Ground anchor" means a steel post set into the ground and supporting the lighting fixture.

#### **74-004 Conductors Buried in Earth**

(1) For aircraft and vehicle visual aid systems on public areas of airports, or which extend beyond airport property, the installation of buried cables shall be in accordance with the requirements of Rule 12-012.

(2) For installations covered by this Section of the Code, in areas not accessible to the public, single conductors and cable assemblies shall be of the type indicated in Table 19 as suitable for direct earth burial and shall be installed as follows:

- (a) In a trench not less 450 millimetres deep and with a layer of sand or screened earth extending at least 75 millimetres above and below the conductors, if in rocky or stoney ground;
- (b) Under runways, taxiways, aprons and roads, with a minimum mechanical protection of rigid conduit or a system of concrete encased underground raceways installed a minimum of 600 millimetres deep.
- (3) Series cables for 6.6 ampere systems directly buried in a trench shall have at least:
  - (a) 75 millimetres lateral separation between cables of different series circuits;
  - (b) 300 millimetres lateral separation from low-voltage and control cables;
  - (c) 75 millimetres vertical separation in cross-overs on the same system; and
  - (d) 300 millimetres vertical separation from low-voltage cables crossing over, with the low-voltage cables in the upper position.

#### **74-006 Direct Burial Transformers**

(1) Series isolating transformers shall be installed in the trench so that a minimum depth of 450 millimetres is provided for the points of entry of the primary cable.

(2) The secondary conductors shall be colour coded, one conductor being identified.

(3) The secondary connectors shall be polarized with the identified conductor connected to the larger pin or receptacle.

(4) The identified conductor shall be grounded.

**74-008 Series Lighting System.** Series lighting systems shall be installed with a ground counterpoise.

#### **74-010 Ground Counterpoise**

(1) Ground counterpoise conductors shall be soft copper wire not smaller than No. 8 AWG, and shall be:

- (a) Solid, bare wire where installed in earth; or
- (b) Insulated and have a green finish if installed underground in raceways.

(2) The ground counterpoise when installed in earth shall be:

- (a) Placed 75 millimetres above all cable in a trench;
- (b) Run in a zig-zag pattern when outer cables are more than 150 millimetres apart, crossing cables at 300 millimetre intervals measured along the trench;
- (c) Placed 75 millimetres over non-metallic conduit containing groups of cables; and
- (d) Placed under any protective covering used.

(3) The counterpoise shall be connected to:

- (a) The ground anchor of each anchor-mounted light unit;
- (b) The grounded secondary conductor of each series isolating transformer;
- (c) The sheath of metal sheathed and the armour of armoured cables where used to supply light units;
- (d) The ground electrodes at all regulators, towers, lighting equipment that the counterpoise system serves; and
- (e) The ground electrode in each manhole through which the counterpoise conductor passes.

(4) Where counterpoise conductors of different systems come together or cross each other they shall be bonded together at those points.

### **SECTION 75—INSTALLATION OF LINES AND WIRING OF BUILDINGS**

#### **75-000 Scope**

(1) This section applies to:

- (a) installations of primary and secondary lines except for lines owned by a supply authority; and
- (b) installation of electrical equipment in farm buildings and similar structures.

(2) This section is supplementary to, or amendatory of, the general requirements of this Code.

#### 75-002 Definitions. In this Section:

- (a) "power conductor" means a conductor which conveys electrical power or energy and is not part of a communication circuit;
- (b) "distribution system" means the system by which electrical power or energy is distributed to the receiving equipment and includes components such as primary line, secondary line, services, distribution transformers, distribution equipment and other equipment of similar nature;
- (c) "CMS" means Central Metering System;
- (d) "authorized person" means a qualified person holding a certificate of qualification recognized by the Province of Ontario as a journeyman electrician and who by the nature of his or her duties or occupation is obliged to approach or handle electrical equipment;
- (e) "primary line" means a distribution system operating at more than 750 volts but not more than 50,000 volts phase to phase;
- (f) "secondary line" means a distribution system operating at 750 volts or less phase to phase;
- (g) "neutral supported cable" means two or three insulated conductors and a bare neutral;
- (h) "A.C.S.R." means aluminum conductor, steel reinforced;
- (i) "open wire bus" means a secondary line conductor with a weatherproof covering on the phase conductors and includes a bare neutral;
- (j) "classified" means poles graded according to strength whereby the minimum circumferential dimensions are so determined that all poles of the same class, regardless of length, will withstand the same horizontal force applied 0.6 metres from the top of the pole when supported 1.8 metres from the butt end in accordance with C.S.A. standards 015 series;
- (k) "A.C.A." means wood poles treated with ammoniacal copper arsenate;
- (l) "penta" means wood poles treated with pentachlorophenol.

#### 75-004 General Requirements

(1) Every installation under this section shall be inspected in accordance with Section 2 of this Code.

(2) Where the work consists of the installation of a

service, the contractor shall consult the supply authority as to the layout of the service and the location of the transformer and meter, regarding compliance with applicable codes or standards under a rule or by-law of the supply authority concerning the layout of the service and the location of the transformer and meter.

(3) Where the work consists of the installation of conductors over or under a railway, the contractor shall submit to the inspector a plan of the crossing endorsed by the railway company with an approval of the work.

(4) Where a distribution system or part thereof is to be installed underground or underwater, the contractor shall submit to an inspector and obtain his approval of the plans and specifications with respect to the distribution system.

(5) Where approval is required from the supply authority by this rule, such approval shall be obtained prior to commencement of any work with respect to the installation.

(6) Installations where the amount of material processed and the total time per day that equipment operates is similar to that in a non-farm installation are not covered by the provisions of this section.

#### 75-006 Disconnection of Live Supply

(1) Subject to Subrule (2), no person shall do any work on a distribution system until such distribution system has been disconnected from its source of supply and de-energized and the conductors relating to the distribution system have been properly grounded.

(2) No repairs or alterations shall be carried out on any live equipment except where complete disconnection of the equipment is not practicable and the work is carried out by an authorized person.

(3) Where work is being done on a distribution system, adequate precautions, such as locks on circuit breakers or switches, warning notices, sentries or other equally effective means shall be taken to prevent the distribution system or any part thereof from being electrically charged.

#### 75-008 Clearances between Power Conductors and Communication Circuits

(1) Electrical equipment, power conductors, communication circuits and equipment shall be so constructed and maintained as to create no undue hazard to previously installed facilities.

(2) Where power conductors and communication circuits are carried on separate parallel pole-lines, such lines shall be spaced apart a distance such that one line cannot fall upon the other line in the event of a breaking of a pole.

(3) Where pole lines cross such that the conductors of one circuit may fall upon the conductors of another

circuit, the power conductors shall be installed such that the clearance between the upper conductors at maximum sag and the lower conductors is at least:

- (a) 1 metre in vertical distance above the conductors of the communication circuit where the line voltage is not more than 750 volts phase to phase; and
  - (b) 2 metres above conductors of the communication circuit where the line voltage is more than 750 volts but not more than 50,000 volts phase to phase.
- (4) Where power conductors and communication circuits are carried on the same pole, the power conductors shall be installed such that the clearance between the upper conductors at maximum sag and the lower conductor is at least:
- (a) 1 metre in vertical distance above the conductors of the communication circuits both at the pole and in the span, where the line voltage is not more than 750 volts phase to phase; and
  - (b) 2 metres in vertical distance above the conductors of the communication circuits both at the pole and in the span, where the line voltage is more than 750 volts but not more than 50,000 volts phase to phase.
- (5) Paragraph (a) of Subrules (3) and (4) shall not apply to a service span from a pole to a building.

**75-010 Joint Use of Poles for Communications Circuits and Power Conductors.** Power conductors and communication circuits shall not be carried on common poles unless the consent to the joint use of the poles, in writing, is obtained from the supply authority and the operators of the communication circuits.

#### **75-012 Location of Conductors on Primary Lines**

- (1) Where primary line conductors cross other conductors of lower voltage, the conductors of the circuit having the highest voltage shall be installed above such other conductors of lower voltage and the vertical clearance between the upper conductor at maximum sag and the lower conductor shall be at least 2.0 m.
- (2) The neutral conductor associated with primary line shall be located a minimum of 2.0 m below the phase conductors and a minimum of 150mm below the transformer.

**75-014 Clearances in Service Span.** Where the voltage of power conductors is not more than 750 volts, the distance between the power conductors and a communication drop-wire in the service span from a pole to a building shall be not less than 300 millimetres.

#### **75-016 Poles**

- (1) All secondary line, primary line and transformer poles shall be new, classified, and:
  - (i) Butt-treated western cedar;
  - (ii) Pressure treated pine; or
  - (iii) Other acceptable material and type.
- (2) The following pole "Species—Treatment" combinations are acceptable for new installations:
  - (i) Western Cedar—A.C.A.;
  - (ii) Red Pine—Penta;
  - (iii) Scotch Pine—Penta;
  - (iv) Jack Pine—Penta;
  - (v) Southern Yellow Pine—Penta;
  - (vi) Western Cedar—Butt Treated Creosote.
- (3)(a) A transformer pole shall be a minimum of class 5 and in accordance with the requirements of Table 100.
- (b) A single phase primary line pole or a secondary line pole shall be a minimum of class 7.
- (c) A three phase primary line pole shall be a minimum of class 5.
- (4) All poles shall have:
  - (a) Butt marking showing:
    - (i) Type of wood or material,
    - (ii) Supplier's code or trademark, and
    - (iii) Class and length;
  - (b) Side marking located  $1.80 \pm 0.05\text{m}$  above the groundline.
  - (c) Side marking which shall include:
    - (i) Treatment plant,
    - (ii) Class and length,
    - (iii) Type of wood,
    - (iv) Last 2 numerals of year of treatment, and
    - (v) Preservation code letter.
- (5) Notwithstanding Subrules (1) and (4), Eastern Cedar poles may be used for secondary line construction on the load side of the service entrance equipment. The minimum acceptable pole top diameter shall be

125 millimetres and minimum acceptable circumference from the butt end shall be in accordance with Table 101.

(6) Notwithstanding Subrule (1), pressure treated pine and butt treated western cedar poles for new lines may be re-used provided that the poles are classified, not more than 10 years old and have no visible signs of damage and that their re-use is lawful under Rule 2-030.

(7) Notwithstanding Subrule (1) of this rule, a used pole may be used on secondary lines only after its condition has been checked by an inspector and before the pole is set in the ground.

#### **75-018 Length of Poles. Subject to Rule 75-026:**

(1) Every pole in primary line on which a transformer is mounted shall be at least 12.5 metres long.

(2) Every pole in a primary line other than a transformer pole shall be at least 11.0 metres long.

(3) Every pole in a secondary line shall be at least 9.5 metres long.

(4) Notwithstanding Subrules (1), (2) and (3), in case of rock pole mounts approved in accordance with Rule 75-020 (5) (b) the above pole lengths can be reduced by 1.5 metres.

#### **75-020 Setting of Poles**

(1) Where a pole having a length shown in column 1 of Table 102 is set in earth, the butt end of the pole shall be buried to a depth at least that prescribed in column 2 of the Table.

(2) Where a pole having a length shown in column 1 of Table 102 is set in solid rock, the butt end of the pole shall be buried to a depth at least that shown in column 2 of the Table less 300 millimetres.

(3) Where poles are installed on slopes or hill-sides, the depth of the hole shall be measured from the lower side of the opening.

(4) Corner and dead-end poles shall be raked towards the anchor in accordance with Table 109.

(5) Where it is impossible to employ the above methods:

(a) Poles shall be cribbed as in specification 27; or

(b) Pole mounts are acceptable on rock subject to the approval of the supply authority.

#### **75-022 Pole Spans and Framing**

(1) Poles used in secondary lines shall be placed not more than 38 metres apart.

(2) Subject to Subrule (3), poles used in primary lines shall be placed not more than 90 metres apart.

(3) Poles used in primary lines shall be placed as per following specifications:

Specification—28—Primary, 1 phase, 16 kilovolts max., vertical.

Specification—29—Primary, 3 phase, 50 kilovolts max., crossarm.

Specification—30—Primary, 3 phase, 50 kilovolts max., vertical dead end and vertical corner.

Specification—31—Primary, 3 phase, 50 kilovolts max., crossarm dead end.

Specification—31A—Primary, 3 phase, 50 kilovolt max., deadend armless,

Specification—32—Primary, 3 phase, 50 kilovolts max., armless (improved appearance).

#### **75-024 Span with Secondary Service Line Attached to Building**

(1) Subject to Subrule (2), the span from the point where the secondary service line is attached to a building to the nearest pole shall not be longer than:

(a) 40 metres for size No. 3/0 AWG and smaller of neutral supported cables types NS-1 and NSF-2; and

(b) 30 metres for size No. 4/0 AWG of neutral supported cables types NS-1 and NSF-2.

(2) The span from the point where the secondary overhead service line is attached to a mobile home or similar structure to the nearest pole or other point of attachment shall not be longer than 10 metres.

#### **75-026 Primary and Secondary Lines Clearances**

(1) The poles which support the phase conductors of a primary line shall be so located and of such height as to afford at a temperature of 16 degrees Celsius a clearance of 7 metres measured vertically between the conductors and the ground.

(2) The primary line neutral shall be considered a secondary conductor and shall have the same minimum vertical clearance as specified in Subrule (3).

(3) Subject to Subrule (5), the poles which support the conductors of a secondary line shall be so located and of such height as to afford at a temperature of 16 degrees Celsius a clearance of 6 metres measured vertically between the conductors and the ground.

(4) Where a consumer desires to install the conductors of a primary or secondary line across a public road, the crossing shall not be made without a written permission from the supply authority and from the

authority having jurisdiction over the road and having the minimum clearance as specified in Subrule (1).

(5) The point of attachment of supply conductors shall be not less than 4.5 metres nor more than 9 metres above sidewalk or grade level and shall be so located and of such height as to afford at a temperature of sixteen degrees Celsius a clearance measured vertically between the conductors and the ground of at least:

- (a) 4.5 metres on properties accessible to pedestrians and passenger vehicles only; or
- (b) 6 metres on properties accessible to commercial and farm vehicles.

#### 75-028 Clearances of Conductors from Buildings

(1) An overhead secondary line conductors shall be kept at least 2 metres measured horizontally or 3 metres measured vertically from all buildings except where necessary to effect a service entrance.

(2) An overhead primary line conductor shall be kept at least 5 metres measured horizontally from a building.

(3) Primary line conductors shall not be installed over buildings unless the installation is lawful under Rule 2-030, and work shall not begin until the plans and specifications for the work are approved in accordance with Rule 2-010.

(4) No building, mobile home or structure shall be placed or constructed within 5 metres measured horizontally from the nearest conductor of an overhead primary line.

#### 75-030 Clearances for Other Structures

(1) Notwithstanding Rule 36-110, conductors of a primary line shall not be installed closer than 12 metres measured horizontally from silos, wells, windmills, antennae, flagpoles and other like structures which increase the possibility of accidental contact by persons or things with such conductors.

(2) Conductors of a secondary line shall not be installed closer than 2 metres horizontally from structures.

(3) The poles and equipment associated with a primary or secondary line shall be located and suitably protected so as to avoid the possibility of damage from contact with vehicles.

#### 75-032 Anchors and Guys

(1) Poles at dead-ends or angles shall be guyed as follows:

- (a) Where a plate anchor is used then in the manner prescribed by Specification 1;

(b) Where a log anchor is used then in the manner prescribed by Specification 2; or

(c) Where an expansion anchor is used then in the manner prescribed by Specification 3.

(2) (a) Where anchors are installed in solid rock the anchors shall be installed in accordance with either item 1 or 2 of Specification 4.

(b) Where anchors are installed in shale or limestone the anchors shall be installed in accordance with item 2 of Specification 4.

(3) Power driven screw anchors shall be installed as per manufacturer's specifications.

(4) All backfill associated with installation of anchors shall be well tamped.

#### 75-034 Guy Wires

(1) Guy wires shall:

- (a) Be of 7-strand steel;
- (b) Have a diameter of at least 8 millimetres; and
- (c) Be galvanized.

#### 75-036 Strain Insulator on Pole Guys

(1) Every guy shall have a strain insulator installed in the manner prescribed in Specification 5. Preformed guy grips suitable for the purpose may be used in lieu of 3 bolt clamps.

(2) A second strain insulator shall be installed at a point below the point of possible contact of the conductor and guy wire where:

- (a) The guyed pole carries a transformer or a fused switch; and
- (b) The breaking of a guy wire could cause a part of the guy wire below the strain insulator to fall against a conductor carried by the pole.

(3) All guy wires shall be protected by a suitable guard.

#### 75-038 Anchoring for Change of Line Direction

(1) Arrangement of guys and anchoring for change of line direction shall be in accordance with specification 38.

#### 75-040 Span Guy Construction

(1) Where a span guy must be installed, it shall be constructed in the manner prescribed in Specification 6.

(2) Where the span between the guyed pole and stub pole crosses over or under conductors operating at a

potential of more than 150 volts to ground, a second strain insulator shall be installed in the span at a point between the power conductors and the guyed pole and not less than 2.5 metres from the stub pole.

#### 75-042 Guys

(1) A guy wire shall be attached to the pole with an approved fitting shown in item 1 of Specification 22 in the manner prescribed in Specification 5 and in such a way that there is no contact between the guy wire fitting or its mounting bolt and any ground wire on the pole. Acceptable preformed guy grips may be used in place of the approved fitting mentioned above.

(2) The back of an insulator through bolt shall not be used as an attachment point for guys.

(3) Where the distance from the upper support clamp on the service mast to the point of attachment exceeds 1.5 metres, or where the span exceeds 30 metres, or the tension is known to exceed 600 pounds, the mast shall be guyed in accordance with Specification 26.

**75-044 Anchor Distance from Pole.** The distance of an anchor from its pole shall be at least one-third the height of the pole above ground.

**75-046 Hardware.** All hardware shall be galvanized.

#### 75-048 Cross-arms

(1) Cross arms, if made of wood shall be:

- (i) Douglas Fir; or  
Western Larch; or  
Western Hemlock; or  
Yellow Cypress; or  
Jack Pine; or  
Lodgepole Pine;

(ii) At least 120 millimetres wide and 95 millimetres thick. For detail on crossarm dimensions see Specification-33, Item 2.

(2) Steel cross arms shall:

- (a) have dimensions in accordance with Specification 33, Item 1; and
- (b) be connected to a ground electrode with a No. 1/0 AWG stranded bare copper conductor.

#### 75-050 Cross arm Pins

(1) The pins shall have standard steel 15.88 millimetres shank complete with special lockwasher suitable for use on wood cross arm and shall be;

- (a) 286 millimetres long and have 25 millimetres lead threads for the insulator on primary lines not more than 8,000 volts to ground and for

ungrounded primary lines not more than 13,800 volts;

- (b) 356 millimetres long and have 35 millimetres lead threads for the insulator on primary lines more than 8,000 volts to ground and for ungrounded primary lines more than 13,800 volts.

#### 75-052 Braces for Cross arms on Primary Lines.

All wood cross arms shall have two braces, each being 864 millimetres long. One piece 'V' shaped cross arm braces are permitted.

#### 75-054 Secondary Racks

(1) Racks shall be used for secondary service conductors as follows:

- (a) When neutral supported cables are attached, one wire rack shall be used as shown on Specification 14 or 15;
- (b) When several conductors are used, see Specification 14 or 15 for the type of rack required, and
  - (i) Where there is no change of direction in a line, the rack shall be erected as shown in item 1 of Specification 13;
  - (ii) Where there is a change of direction in a line, the rack shall be erected as shown in item 2 of Specification 13;
  - (iii) At a dead-end in a line, the rack shall be erected as shown in item 3 of Specification 13.

(2) Neutral supported cable shall be installed in accordance with Specification 12.

**75-056 Insulators.** Insulators shall be selected in accordance with Table 108 and Specifications 35, 36 or 37.

#### 75-058 Conductors-Overhead

- (1) (a) Secondary service conductors, for a current carrying capacity up to 200 amperes shall be neutral supported cable and each conductor thereof shall have ampacities in accordance with Table 36.
- (b) For a current carrying capacity over 200 amperes open wire bus with a bare neutral conductor properly spaced may be used.

(2) Primary line conductors shall be bare and not less than No. 2 A.W.G. A.C.S.R.

**75-060 Sag Between Poles.** Open wire bus, neutral supported cable and A.C.S.R. shall be installed so that the sag of the conductors between poles is determined by using Tables 103, 104, 105 or 106 appropriate to the

size and type of conductor being installed and with respect to applicable span and temperature.

**75-062 Sag Between Pole and Building.** Open wire bus, neutral supported cable and A.C.S.R. shall be installed so that the sag of the conductors between a pole and a building is determined by using Tables 103, 104, 105 and 106 appropriate to the size and type of conductor being installed and with respect to applicable span and temperature.

#### 75-064 Conductor Ties

(1) Primary line conductors shall be tied to pin-type insulators by means of No. 4 AWG soft drawn bare aluminum tie wire:

- (a) In the manner prescribed by specification 9 where there is no change in direction of the line at the insulator;
- (b) In the manner prescribed by Specification 10 where there is a change in direction of the line at the insulator.

(2) Secondary line conductors with weatherproof covering, shall be tied to secondary-rack spool-type insulators in the manner prescribed by Specification 11.

(3) Neutral conductors on neutral spool bolt insulators shall be tied with long spool-ties in a manner prescribed by Specification 8.

**75-066 Compression Connections.** Compression connectors are required for all overhead current carrying connections.

#### 75-068 Attachment of Secondary Line Conductors.

(1) Secondary service conductors shall terminate on a dead-end rack of a type shown in either Specification 14 or 15:

- (a) Attached to a pole in accordance with either Specification 12 or 13; or
- (b) Attached to the timber framing of a building by two machine bolts of at least 12.5 millimetres diameter backed by washers unless a one-wire rack is used such as shown in item 1 of Specification 15.

(2) Where it is necessary to install an approved service mast to meet the requirements of Rule 6-114 the mast shall be attached to the building as shown in Specification 26 and guyed, if necessary, in accordance with the Note on Specification 26.

#### 75-070 Service Box Installation

(1) Where a service box is installed on a pole which supports the conductors of a secondary service only,

the midpoint of the meter shall be located as shown in Specification 16.

(2) Where a service box is installed on a transformer pole, no equipment other than that shown in Specification 17 shall be placed on the pole, except that one temporary service may be attached in addition to the permanent service.

(3) Service boxes shall not be installed on poles located on a public road.

(4) The following requirements shall apply to the Central Metering System (CMS):

- (a) A standard pole-mounted distribution transformer without a secondary breaker or pole-mounted switch shall be used to supply multi-building installations;
- (b) The method of entry of conductors into a building shall be in accordance with Rules 6-206 and 6-302;
- (c) Each building shall have a main service box at point of entry;
- (d) The service equipment shall be bonded to the neutral;
- (e) A ground electrode shall be used at each service box in accordance with Rule 75-084;
- (f)
  - (i) New overhead yard wiring shall be neutral supported cable with a minimum of No. 2 AWG aluminum, and when in parallel shall comply with Rule 12-108;
  - (ii) New overhead yard wiring with current carrying capacity over 200 amperes, open wire bus with a bare neutral conductor properly spaced may be used.
- (g) The ampacity of the overhead or underground conductors feeding one or more buildings shall be based on:
  - (i) 100 per cent of the rating of the largest service box; and
  - (ii) 75 per cent of the sum of the ratings of all other service boxes supplied.
- (h) All poles carrying primary or secondary lines shall have the following warning sign; "Danger—Keep Off; If work on this pole or near wires is necessary, call the Hydro Office";
- (i) Transformer pole hardware and metering equipment shall be in accordance with Specification 19;
- (j) If metering is located on other than a transformer pole the meter socket shall be connected

to the ground electrode and the system neutral in accordance with Specification 18;

(k) Pole top switches may be installed to the following requirements:

(i) The switch shall be approved for the purpose;

(ii) The minimum ampacity of the main contacts of the switch shall be 100% of the largest service box plus 75% of the sum of the ratings of all other service boxes supplied;

(iii) The minimum clearances on the pole shall be those shown on Specification 20;

(iv) Underground services shall be in accordance with the requirements of Rule 6-300;

(l) All equipment mounted on a pole shall be mounted on the same  $\frac{1}{3}$  continuous pole circumference leaving the remaining  $\frac{2}{3}$  of the continuous pole circumference clear for climbing purposes.

(m) C.M.S. type service shall not have more than four subdivisions of the service extending from one pole.

**75-072 Service Attachment to Poles.** No equipment shall be attached to the poles of a supply authority without express permission of the supply authority.

**75-074 Service Box Installation on a Transformer Pole**

(1) Where a service box is installed on a transformer pole:

(a) The ground electrode shall be installed at the pole by the supply authority;

(b) The consumer shall provide a grounding conductor for the non-current-carrying metal parts of the service box; and

(c) The supply authority shall connect the grounding conductor to the ground wire on the pole.

(2) All non-current-carrying metal parts of the service box shall be grounded.

**75-076 Location of Meters.** Meters shall be located in accordance with Subrule 6-408(1).

**75-078 Conductors at Service Switch.** Conductors connected to the load side of a service switch shall not be installed in a conduit with conductors connected to the line side of the service switch.

**75-080 Tree Trimming**

(1) The owner of a private line shall provide complete protection to the line from trees and other forms of woody growth in compliance with a code or standard under a rule or by-law of the supply authority concerning tree trimming.

(2) Where there is no applicable code or standard under a rule or by-law of the supply authority concerning tree trimming, all trees and woody growth adjacent to a line shall be trimmed so that minimum clearance to the nearest conductor horizontally and vertically at a maximum sag shall be:

(a) 1 metre for secondary lines;

(b) 4 metres for primary lines.

**75-082 Grounding Conductors**

(1) The grounding conductor shall be in accordance with Section 10.

(2) The grounding conductor located above ground shall be protected against mechanical injury by means of wood moulding, conduit, or similar approved methods.

(3) Metal guards or metal conduit shall not be used as protection for the grounding conductor in locations accessible to livestock.

**75-084 Ground Electrodes**

(1) Each ground electrode shall consist of one or more standard ground rods.

(2) There shall be not less than two ground rods installed for each consumer's installation.

(3) Ground rods, if of iron or steel, shall have a minimum diameter of 15.88 millimetres.

(4) Ground rods shall be provided with solderless clamps of an approved type.

(5) Where a ground electrode consists of two or more ground rods, the ground rods shall be installed not less than 3 metres apart.

(6) Where ground rods are installed outside a building, they shall:

(a) Be at least 3 metres long; and

(b) Be driven to a depth such that the top of the ground rods are a minimum of 250 millimetres below ground level.

(7) Where ground rods are installed in a basement:

(a) They shall extend not less than 1.6 metres into the ground; and

- (b) Ground clamps which are protected against mechanical injury may be located above the surface of the floor through which the rods are driven.

(8) All ground electrodes shall be connected to the system neutral to minimize voltage gradients.

#### **75-086 Location of Underground Grounding Conductor**

(1) The grounding conductor shall be run underground to the ground electrode and shall be:

- (a) Buried in the earth to a depth not less than 250 millimetres below the ground level;
- (b) Not be located within 3 metres of a doorway; and
- (c) Not be located in an area normally frequented by livestock.

#### **75-088 Grounding of Service Equipment on Transformer Poles**

(1) Where the service equipment is installed on a transformer pole:

- (a) The neutral conductor of the consumer's service shall not be grounded by any person other than an employee of the supply authority;
- (b) (i) The neutral conductor shall be brought into the service box;
- (ii) The neutral conductor shall be installed with both the line and the load conductors on the service pole, and notwithstanding the provisions of Rule 4-020, the neutral conductor may be bare.
- (c) The contractor shall bond the non-current-carrying metal parts of the service equipment to a grounding conductor sized in accordance with Rule 10-812 and at least 500 millimetres of the grounding conductor shall extend outside the weatherproof enclosure.

(2) Where the transformer is owned by the supply authority, an installation is acceptable provided the supply authority attaches the grounding conductor to the supply authority's ground wire by means of a solderless connector.

(3) Where the transformer is privately owned, the owner shall supply and install all grounding in accordance with Section 10.

#### **75-090 Clearance-Lightning Conductors**

(1) Requirements for the spacing or bonding of electrical and lightning rod systems are given in Rule 10-706 as follows: Where practicable, a clearance of at least 2 metres shall be provided between lightning

rod conductors and electrical conductors and equipment but, where this separation is not possible, the ground electrodes for the two systems shall be connected together, at or below ground level, with a copper conductor of a size not less than that of the grounding conductor for the electrical system and in no case shall the bonding conductor be smaller than No. 6 AWG copper.

(2) Metal enclosures of circuit conductors shall where practicable be kept at least 2 metres from the lightning conductors and where this is not practicable shall be bonded to the lightning conductors at the maximum elevation of the wiring system.

#### **75-092 Service Equipment**

(1) Service boxes or other approved service equipment shall be installed in an acceptable location and shall be:

- (a) As close as practicable to the point where the service conductors enter the building.
- (b) Readily accessible, or have the means of operating them readily accessible;
- (c) Not located in coal bins, clothes closets, bathrooms, stairways, high ambient rooms, dangerous or hazardous locations, nor in any similar undesirable places; and
- (d) If placed on a pole;
  - (i) Weatherproof, and
  - (ii) Protected from mechanical injury if less than 2 metres above ground; and
- (e) If placed on outside of a building:
  - (i) weatherproof or enclosed in a weatherproof enclosure, and
  - (ii) protected from mechanical injury if less than 2 metres above ground.

(2) The non-current-carrying metal parts of the service and neutral conductor of the consumer's service shall be grounded in accordance with Section 10.

#### **75-094 Pole Mounted Lights**

(1) Pole mounted lights shall not be installed on a transformer pole.

(2) Where pole mounted lights are installed on poles carrying the conductors of a primary line, the lighting fixture shall be at least 3 metres below the primary conductors.

(3) Where pole mounted lights are controlled from more than one point by switches, each switch shall be so wired and connected that the identified (neutral)

conductor runs directly to the light or lights controlled by it.

(4) The identified conductor of the circuit supplying the pole mounted light may be connected to the neutral conductor of a feeder or subfeeder.

(5) Each lighting circuit shall have adequate over-current protection. A weatherproof in-line fuseholder assembly is acceptable for this purpose.

(6) All non-current-carrying metal parts of a lighting unit shall be grounded in accordance with Section 10.

#### 75-096 Wiring in Buildings

(1) Where a service feeder or subfeeder enters a building, it shall be installed in accordance with Rule 6-302 and a service box shall be installed at the point of entrance.

(2) Where a service box supplies more than two branch circuits, overcurrent devices shall be installed in an enclosure on the load side of the main switch or circuit breaker.

(3) The wiring in barns, stables and out-buildings shall be:

- (a) copper; and
- (b) Enclosed in PVC Rigid Conduit; or
- (c) Non-metallic sheathed cable of a NMW type; or
- (d) Any other method in accordance with Section 22.

(4) The wiring in a residence may be:

- (a) Nonmetallic sheathed cable; or
- (b) Any other approved method.

(5) Metallic water supply systems and metallic waste water piping systems shall be bonded in accordance with Rule 10-406.

(6) Where nonmetallic sheathed cable is run on a wall or the framework of a barn, out-building or residence, or in any other place where it is likely to be damaged by cattle or by the impact with moving objects, it shall be protected by PVC conduit.

(7) Nonmetallic sheathed cables must not be run along the top of structural members, but may be securely fastened to the sides and bottoms of structural members.

(8) Nonmetallic sheathed cables must have mechanical protection when crossing over structural members.

(9) Nonmetallic sheathed cables must have mechanical protection where they enter floors.

(10) Where nonmetallic sheathed cable must enter walls or ceilings or concealed areas over beams, a PVC conduit shall be used to protect the nonmetallic sheathed cable where subject to damage by rodents.

(11)(a) Livestock waterers, wire mesh, grates, metallic water pipes, stanchions, water bowls, vacuum lines, grain feeders, gates, support posts and other metals shall be bonded together by a separate stranded copper conductor not smaller than No. 6 A.W.G.

(b) The metallic equipment bonded in Subrule (a) shall be grounded and connected to the system neutral ground at the distribution panel by a separate single stranded copper conductor not smaller than No. 6 A.W.G.

(12) In milking parlors concrete floors shall have a 6 inches by 6 inches by 9 gauge wire mesh, and bonding and grounding shall be in accordance with Subrule (11).

#### 75-098 Wiring Devices—Barns, Stables and Out-Buildings

(1) In barns, stables and out-buildings, all lamp outlets shall be controlled by means of wall switches.

(a) An outlet, switch, receptacle or other wiring device shall be:

- (i) Contained in a box made of insulating material having a cover of insulating material; or
- (ii) An approved self-contained outlet, switch receptacle or other wiring device, made of insulating material.

#### 75-100 Lighting Fixtures

(1) Where dust or chaff is likely to collect on lamps they shall be:

- (a) Mounted vertically; and
- (b) In totally enclosed gasketed type globes.

(2) Keyless weatherproof pigtail lampholders shall be installed at lamp outlets in barns, stables and out-buildings, subject to Subrules (3), (4) and (5).

(3) In milk houses and other areas having controlled environment, low temperature ballasted fluorescent or standard incandescent lighting fixtures may be used.

(4) Where fixtures are subject to mechanical damage the fixtures shall be:

- (a) A weatherproof pigtail type with gasketed type globe; or

- (b) Any other approved type installed at an elevation of at least 3 metres.

(5) High intensity discharge lighting may be used for yard lighting and high bay areas.

#### 75-102 Silo Unloaders

##### (1) General:

- (a) Silo unloaders shall be approved;
- (b) All boxes and fittings installed outdoors or in silos shall be weatherproof.

##### (2) Motors:

- (a) Silo motors shall be either totally enclosed or fitted with suitable screens to prevent entrance of foreign objects into the ventilating passages of the motor;

- (b) The motors are required to have individual overload protection in accordance with Rule 28-300;

- (c) **The type of overload protection complying with Rule 28-302 shall be a separate overload device responsive to motor current rated or set in accordance with Table 26. An integral thermal protective device specifically approved for use with the motor which it protects is a permitted alternative providing that the manual reset button is easily accessible. Automatic resetting overload devices are not permitted.**

- (d) The motors shall be controlled by means of a magnetic motor controller, with a control station in the silo, capable of preventing the motors being started from any other location. A jog pushbutton is required at the control station in the silo unless a local or remote operation selector switch is available at the controller then, a control station on a cord set, that may be carried into the silo by the operator, is permitted as a controlling means, provided that start pushbutton performs a jog function only;

- (e) A suitable disconnecting means shall be installed within sight of the controller in accordance with Rule 28-604.

##### (3) Wiring Method:

- (a) Outside Wiring. The wiring from a building to a silo shall be installed either underground, in accordance with Rule 12-012, or overhead in accordance with Rule 75-070;

- (b) Silo Riser. The riser conductors on the exterior wall of the silo shall be enclosed in rigid steel or PVC conduit, ACL, M.I., A/S or NMWU or flexible cord mechanically protected as required. Flexible cord assemblies noted in Paragraph (c) may be used provided

that the cord assembly is suitably supported and protected and is provided with a take-up reel, or equivalent, to prevent slack cable problems. The riser conductors shall terminate in a weatherproof enclosure or box whenever necessary;

- (c) Power Supply Cords. The cord assembly shall consist of:

- (i) A cable for hard usage outdoors in wet locations as listed in Table 11; or

- (ii) Type SJO or SO;

- (d) Support of Cord Assembly. The cord assembly shall be supported by suitable strain relief clamps.

#### 75-104 Standby Generators

(1) Standby generators shall not be connected to a wiring system except through a double-throw switch which will prevent feedback on the supply authority's system.

(2) The wiring method and grounding of permanently installed standby generators shall be in accordance with Sections 10 and 12.

(3) In addition to requirements of Subrule (1), portable standby generators shall meet the following requirements:

- (a) Where the portable standby generator neutral is isolated from ground, the cable assembly shall contain a separate green grounding conductor in addition to the identified neutral conductor;

- (b) For portable standby generators rated 60 amperes and less the conductors shall terminate in an approved receptacle as listed in Diagrams 1 and 2.

- (c) For portable standby generators rated more than 60 amperes, the conductors shall terminate in a receptacle that provides simultaneous disconnect of all ungrounded conductors and incorporates a rejection feature prohibiting the interconnection of ungrounded and neutral and/or grounding conductors;

- (d) Where a double throw transfer is mounted at a service entrance, the transfer switch shall be located on the load side of the service entrance switch;

- (e) Pole top transfer switches used in conjunction with Central Metering Systems shall be installed in accordance with Specification 20;

- (f) The conductors used in conjunction with a portable standby generator and which are to be installed on the pole shall be enclosed in rigid conduit and terminate at the generator connection.

tion point in a weatherproof box complete with threaded hub;

- (g) At least one ground rod shall be installed at every location where the generator may be connected;
- (h) Where a receptacle for a standby generator is not located on the same pole as the corresponding transfer switch, the point of attachment on the pole bearing the switch for the conductors from the receptacle shall be directly below the switch.

**75-106 Underground Cables.** For the purpose of this rule, underground cable shall mean cable which is the whole or a part of either a primary or secondary line.

(1) General:

- (a) An underground cable shall be of a type approved for this purpose;
- (b) Where an underground cable trench is installed in rocky or stony ground the cables shall be laid in a bed of sand extending 75 millimetres below and 75 millimetres above them;
- (c) Underground cables shall be laid parallel to each other;
- (d) Where mechanical protection for underground cables in the form of cable brick, treated planks or other acceptable materials are employed, it shall be wide enough to extend at least 50 millimetres beyond the cables on each side. Treated planks shall not be less than 38 millimetres in thickness. Planks treated with creosote solutions are not permitted and shall not be used;
- (e) Where underground cables pass under roadways, or railways, the underground cable shall be installed with mechanical protection in the form of non-metallic directly buried duct, rigid conduit or duct embedded in concrete;
- (f) (i) Subject to Subparagraph (ii) of this Subrule where underground cables are installed in the same trench as other services, the underground cable shall be installed below the level of other services and shall have mechanical protection interposed between them;
- (ii) Where underground cables are installed at the same level as other underground services, the underground cables shall be kept at a distance of at least 1 metre measured horizontally;
- (g) Where underground cables emerge they shall be run in rigid conduit or other approved raceway or otherwise suitably protected;

(h) Where the underground cable extends up a pole:

- (i) the raceway shall extend up the pole to the point where it is necessary for the conductors to diverge; and
- (ii) be equipped with a rain-tight service-head.
- (i) Where underground cables must cross other underground services the underground cables shall be installed in suitable duct or mechanical protection shall be interposed at the point of crossing.

(2) Primary Line Cables:

Underground primary line and secondary line cable shall be installed in accordance with Rule 12-072.

**75-108 Submarine Power Cable.** Submarine power cables shall be manufactured to either I.C.E.A. Standard S-66-524, or Ontario Hydro Standard M355, or such other standards as may be approved.

**75-110 Hazardous Locations**

(1) For the purpose of this Rule, there are two categories of grain dust producing locations as follows:

- (a) Farms—where the product is being produced only for use on the particular farm;
- (b) Commercial—where the product is being produced for resale or is a custom preparation for others or where the amount of material handled is large as compared to what might be processed on the farm.

(2) The requirements of Table 107 shall be applied to determine the wiring method in either of the locations listed in Subrule (1) hereof.

**75-112 Fuel Dispensing.** Gasoline and propane dispensing equipment shall be installed in accordance with Sections 18 and 20.

**75-114 Submersible Pumps**

(1) Submersible pumps shall be installed in accordance with manufacturer's instructions and Rules 26-950 to 26-956.

(2) Submersible pumps shall be grounded in accordance with Section 10.

**SECTION 76—TEMPORARY WIRING**

**76-000 Scope**

(1) This Section of the Code covers temporary wiring installations for buildings or projects under construction or demolition and experimental or testing facilities of a temporary nature.

(2) The requirements of this Section are supplementary to, or amendatory of, the general requirements of the Code.

**76-002 Inspection and Reinspection.** All installations and equipment shall be subject to inspection or reinspection at any time.

#### **76-004 Conductors**

(1) Conductors shall be of a type in accordance with Section 12 or be flexible cord or power supply cable of the outdoor type suitable for extra-hard usage as indicated in Table 11.

(2) Conductors shall be insulated except as permitted by Rules 6-308, 10-802 and 10-806.

(3) Service conductors shall be installed in accordance with Sections 6, 10 and 36.

(4) Overhead conductors shall be aerially supported in an acceptable manner on poles or other acceptable means with the spacing of supports not to exceed the maximum span length allowable for the type of conductors used.

**76-006 Grounding.** All grounding shall be in accordance with Section 10.

**76-008 Service Entrance Equipment.** Service entrance equipment shall be in a temporary building adjacent to the construction or demolition site but if such a building is not available, the equipment may be mounted on a pole structure if it is:

- (a) Accessible to authorized persons only;
- (b) Capable of being locked;
- (c) Protected against weather and mechanical damage; and
- (d) Not over 200 amperes capacity.

#### **76-010 Distribution Centres**

(1) Distribution centres shall have a sufficient number of branch circuits and be of adequate capacity to serve the connected load without overloading any branch circuits and without violating the requirements of Section 14.

(2) Distribution centres shall be installed in a weatherproof building or be of weatherproof construction.

(3) Distribution centres including portable ones shall be mounted in an upright position on acceptable supporting structures and must be acceptable for the purpose.

#### **76-012 Feeders**

(1) Feeders supplying distribution centres shall be installed in armoured cable or the equivalent.

(2) Notwithstanding Subrule (1), feeders to portable distribution centres may be flexible cord or power supply cable of the outdoor type suitable

for extra-hard usage as indicated in Table 11 and containing a grounding conductor.

(3) Feeders shall be protected at all times from mechanical damage and protected by suitable overcurrent protective devices and controlled by suitable disconnecting means.

#### **76-014 Branch Circuits**

(1) Non-metallic sheathed cable is permitted to be used for branch circuits providing:

- (a) Type NMWU is used;
- (b) It is installed in accordance with Section 12; and
- (c) It is not smaller than No. 12 AWG when of copper and not smaller than No. 10 AWG when of aluminum.

(2) Lighting branch circuits shall be kept entirely separate from power branch circuits.

(3) The installation and type of luminaires or lamp-holders shall comply with Section 30.

(4) Each lighting branch circuit shall be protected by a circuit breaker set in accordance with Rule 30-104 and the connected load shall not exceed 80 per cent of the circuit breaker rating.

(5) Power branch circuits shall be provided as follows:

- (a) Separate branch circuits sized and protected by circuit breakers in accordance with Section 28 shall be provided for motor loads exceeding that encountered from general use hand held tools;
- (b) Separate branch circuits for known loads such as electric heating shall be protected by circuit breakers set at a value so that the load connected does not exceed 80 per cent of the rating of the breaker; and
- (c) General use receptacle power branch circuits shall be protected by a circuit breaker set at a value not exceeding the lowest rating of any receptacle connected on the branch circuit.

**76-016 Interconnections.** Temporary installations shall be constructed as separate installations and at no time shall they be interconnected with any of the circuits of the permanent installations unless the interconnection is lawful under Rule 2-030.

### **SECTION 78 — MARINAS, YACHT CLUBS, MARINE WHARVES, STRUCTURES AND FISHING HARBOURS**

**78-000 Scope.** This Section is supplementary to, and amendatory of the general Sections of this Code and applies to installations as follows:

- (a) Marinas, yacht clubs and similar establishments, including fixed or floating piers, which are used for the construction, repair, storage, launching, berthing and fueling of small craft; and
- (b) Facilities for marine wharves, structures, and fishing harbours.

### Marinas and Yacht Clubs

**78-050—General.** Rules 78-052 to 78-064 inclusive, apply to electrical installations in marinas and yacht clubs.

### 78-052—Receptacles

(1) Where receptacles are installed on fixed or floating piers, docks, or wharves, and intended to supply shore power for boats, they shall be:

- (a) 15 amperes, single or duplex, locking or non-locking type conforming to Diagram 1 or 2; or
- (b) 20 amperes or more, single, locking type conforming to Diagram 2.

(2) Receptacles which supply shore power other than for boats may be of the locking or non-locking type conforming to either Diagram 1 or 2.

(3) Receptacles shall be made of corrosion-resistant material.

(4) Receptacles shall be located above the permanent or maximum normal water level so that they cannot become immersed in water and shall be protected from splashing.

(5) Fifteen and 20 ampere, single phase, 125 volt receptacles other than those supplying shore power to boats shall be protected by ground fault circuit interrupters of the Class A type.

(6) Receptacles of configuration 5-15R (Diagram 1), intended to supply shore power to boats and installed outdoors or on fixed or floating piers, docks, or wharves, shall be protected by a ground fault circuit interrupter of the Class A type.

**78-054—Branch Circuits.** Each receptacle that supplies shore power to boats shall be supplied by an individual branch circuit that supplies no other equipment.

### 78-056—Feeders and Services

(1) The load for each feeder and service supplying receptacles installed on fixed or floating piers, docks or wharves, and intended to supply shore power to boats shall be calculated on the basis of the ampere rating of the receptacles and applying the following demand factors:

- (a) 100 per cent of the sum of the first four receptacles having the highest ampere ratings; plus
- (b) 65 per cent of the sum of the ampere ratings of the next four receptacles having the same or next smaller ratings to those specified in Paragraph (a); plus
- (c) 50 per cent of the sum of the ampere ratings of the next five receptacles having the same or next smaller ratings to those specified in Paragraph (b); plus
- (d) 25 per cent of the sum of the ampere ratings of the next sixteen receptacles having the same or next smaller ratings to those specified in Paragraph (c); plus
- (e) 20 per cent of the sum of the ampere ratings of the next twenty receptacles having the same or next smaller ratings to those specified in Paragraph (d); plus
- (f) 15 per cent of the sum of the ampere ratings of the next twenty receptacles having the same or next smaller ratings to those specified in Paragraph (e); plus
- (g) 10 per cent of the sum of the ampere ratings of the remainder of the receptacles.

(2) Where a service or a feeder supplies receptacles as in Subrule (1), plus other loads, the capacity of the conductor shall be calculated in accordance with Subrule (1) plus the other loads in accordance with the other Rules of this Code.

### 78-058 Wiring Methods

(1) The wiring method, where exposed to the weather or splashing of water shall be:

- (a) Corrosion-resistant rigid metal conduit or rigid PVC conduit;
- (b) Mineral-insulated cable having a copper sheath;
- (c) Non-metallic sheathed cable of the NMWU type;
- (d) Armoured cable having moisture resistant insulation and overall corrosion protection; or
- (e) Metal sheathed cable having overall corrosion protection.

(2) Where flexibility is required outdoor flexible cord suitable for at least hard usage as specified in Table 11 shall be used.

**78-060 Grounding and Bonding.** Grounding and bonding requirements shall be in accordance with Section 10, except that an equipment bonding conductor of copper not smaller than No. 12 AWG shall be used.

**78-062 Wiring Over and Under Navigable Water.** Acceptance of a wiring installation over and under navigable water is subject to authorization from the authority having jurisdiction for the specific waterway.

**78-064 Gasoline Dispensing Stations.** Requirements shall be in accordance with Section 20 of this Code except that when considering hazardous areas, the grade or ground level shall be the lowest water surface.

### **Marine Wharves, Structures and Fishing Harbours**

**78-100 General.** Rules 78-054, 78-056, 78-062, 78-064, 78-066 and 78-100 to 78-114 inclusive apply to electrical installations on marine wharves, marine structures and fishing harbours.

#### **78-102 Receptacles**

(1) Where receptacles are installed on fixed or floating piers, docks or wharves in fishing harbours or on marine structures, they shall be:

- (a) 15 ampere, single or duplex, locking or non-locking type conforming to Diagram 1 or 2; or
- (b) 20 ampere up to and including 60 ampere, single, locking type, conforming to Diagram 2 or special purpose pin and sleeve type; or
- (c) Over 60 ampere, single, special purpose pin and sleeve type.

(2) Receptacles shall be fabricated from materials resistant to a salt spray, and shall be provided with weatherproof enclosures.

(3) Fifteen- and 20-ampere, single-phase, 125-volt receptacles other than those supplying shore power to boats shall be protected by ground fault circuit interrupters of the Class A type.

#### **78-104 Wiring Methods**

(1) The wiring method, where exposed to the weather or splashing of water or salt spray, shall be:

- (a) Corrosion resistant rigid metal conduit, rigid RE conduit, or rigid PVC conduit;
- (b) Mineral-insulated cable having a copper sheath;
- (c) Nonmetallic sheathed cable of the NMWU type; or
- (d) Armoured or metal sheathed of types listed in Table 19 as suitable for exposed wiring in wet locations.

(2) To allow for tidal movement, an outdoor flexible cord suitable for wet locations and at least hard

usage as listed in Table 11 or equivalent, and supported at both ends of gangways to floats by means capable of gripping the cable in reaction to tension due to the weight of the cable or a pull on the cable shall be used.

(3) Conduit, cable, and overhead wiring shall be installed to avoid mechanical damage and shall be routed to avoid conflict with other potential users of the wharf or structure.

(4) Conduit, cable and wiring systems shall be installed to prevent damage from wave action, ice, storm damage, and mooring hooks and lines.

(5) Fastening hardware shall be galvanized steel, stainless steel, PVC coated steel, brass or other materials with similar corrosion resistant properties.

#### **78-106 Grounding and Bonding**

(1) Grounding and bonding requirements shall be in accordance with Section 10, except that bonding conductors of copper not smaller than No. 12 AWG shall be used.

(2) For electrical systems on wharves located in areas where it is impractical to install a shore-based grounding electrode because of poor earth conductivity, an underwater grounding grid conforming to one of the following methods are permitted:

- (a) On structures with steel piling where the piles are founded in the harbour bottom and continually immersed in salt water, it is permitted to ground to the piling provided the connections are readily accessible and the grounding conductor is mechanically protected throughout its length; or
- (b) On structures that do not conform to Paragraph (2)(a) it is permitted to connect the grounding conductor to a steel plate electrode, minimum 10 millimetres thick and 0.36 square metres in area; and
  - (i) The grounding conductor shall be connected to the plate electrode using a thermit-weld connection and shall be mechanically protected to point 2 metres below the normal low tide elevation; and
  - (ii) The plate electrode shall be founded on the harbour bottom on the lee side of the wharf where the lee side is determined from the prevailing winds.

**78-108 Corrosion Resistant Materials** (see Appendix B). Corrosion resistant materials, or materials resistant to corrosion shall be used for outdoor locations.

**78-110 Wharf Facilities.** All electrical wiring and equipment shall be located to avoid interference with

docking of vessels, unloading and loading of vessels, and operation of wharf equipment and trucks.

### 78-112 Equipment Location

- (1) Electrical equipment shall be:
  - (a) Located above the wharf deck and protected from wave action, ice, storm damage, and mooring lines; and
  - (b) Located in such a manner as to minimize risk of damage from wave action and splashing; and
  - (c) Located to avoid impact from docking vessels and vehicular traffic on the wharf.

(2) Receptacles, communication systems, equipment, and other electrical apparatus that may be subject to mechanical damage shall be protected by mounting the equipment in robust shrouds or kiosks constructed of metal, concrete bollards, plywoods, fibreglass, or shall be protected by other equivalent methods.

## SECTION 80 — CATHODIC PROTECTION

### 80-000 Scope

(1) This Section applies to the installation of impressed current cathodic protection systems.

(2) The requirements of this Section are supplementary to, or amendatory of, the general requirements of this Code.

### 80-002 Wiring Methods for Direct Current Conductors

(1) Direct Current Wiring in non-hazardous areas shall conform to the requirements of Section 12 of this Code except that wiring below ground is permitted to be:

- (a) Buried at a depth of not less than 450 millimetres; or
- (b) Buried at a depth of not less than 200 millimetres where installed in raceway or mechanical protection is provided in accordance with Rule 12-012(3).

(2) Direct Current wiring in hazardous areas shall conform to the requirements of Sections 18 and 20.

(3) Notwithstanding Rule 20-004(8), underground Direct Current wiring below a Class I, Division 1 or Division 2 area is permitted to be installed in accordance with Subrule (1) provided:

- (a) The wiring is in threaded rigid metal conduit where it emerges from the ground; and

- (b) The conduit is sealed where it emerges from the ground and at other locations as required by Rule 18-106 or Rule 18-154.

### 80-004 Conductors

(1) Conductors for direct current cathodic protection wiring shall be not smaller than No. 12 AWG and shall be suitable for the condition of use as indicated in Table 19 for the particular location where installed.

(2) Notwithstanding Subrule (1), conductors smaller than No. 12 AWG are permitted to be used for instrumentation and reference electrode leads.

### 80-006 Splices, Taps, and Connections

(1) Splices and taps shall be permitted to be made in Direct Current wiring below ground provided:

- (a) The splice or tap is made by welding, by a positive compression tool, by crimping and soldering, or by means of a copper, bronze, or brass cable connector; and
- (b) The splice or tap is effectively sealed against moisture by taping or some other method that is at least as effective as the original insulation of the conductor.

(2) The conductor shall be connected to piping by means of welding, or by means of a copper, bronze or brass grounding clamp.

(3) The conductor shall be connected to tanks or other structures by means of a welded ground stud or other permanent means.

(4) Underground connections shall be sealed against moisture by the application of an acceptable coating or other suitable method.

**80-008 Branch Circuit.** The branch circuit supplying the rectifier shall be:

- (a) In accordance with the requirements of Section 12 of this Code;
- (b) Provided solely for the cathodic protection system rectifier; and
- (c) Supplied from a switch or circuit breaker that is capable of being locked in the 'on' position.

**80-010 Operating Voltage.** When a cathodic protection system operates at more than 50 volts, the touch voltage at any exposed point of the protected system shall not exceed 10 volts.

### 80-012 Warning Signs and Drawings

(1) Tanks, pipes or structures protected by a cathodic protection system shall bear a marking, either on the structure, or on a tag attached to the conductor close to the connection to the structure, warn-

ing that the connection is not to be disconnected unless the power source is turned off.

(2) A notice shall be placed in a conspicuous location adjacent to the disconnecting means for any electrical apparatus that is connected to the cathodically protected structures advising that the cathodic protection must be turned off before equipment or piping is replaced or modified.

(3) A drawing showing the location of underground wiring and anodes shall be provided inside of the rectifier cabinet or in an acceptable location near the cabinet.

## SECTION 82 — CLOSED-LOOP POWER DISTRIBUTION

### 82-000 Scope

(1) This Section applies to the installation of closed-loop power distribution systems.

(2) The requirements of this Section are supplementary to, or amendatory of, the general requirements of this Code.

**82-002 Special Terminology.** In this Section the following definition shall apply:

“Closed-loop power distribution system” means a power distribution system jointly controlled by signalling between the energy controlling equipment and the utilization equipment.

**82-004 Approval.** All components of a closed-loop power distribution system, including conductors shall be specifically approved for the purpose.

### 82-006 Control

(1) Outlets forming part of a closed-loop power distribution system shall not be energized unless the utilization equipment plugged therein first exhibits a nominal-operation acknowledgment.

(2) Outlets forming part of a closed-loop power distribution system shall be disconnected when any of the following conditions occur:

- (a) A nominal-operation acknowledgement signal is not being received from the utilization equipment connected to that outlet;
- (b) A ground-fault condition exists; or
- (c) An overcurrent condition exists.

(3) In the event of a controller malfunction, all associated outlets shall be de-energized.

**82-008 Ground Fault Circuit Interrupters.** Where a closed-loop power distribution system supplies a

receptacle incorporating a ground fault circuit interrupter it shall be of the Class A type.

**82-010 Protection of Ungrounded Conductors.** Approved devices providing equivalent overcurrent protection in closed-loop power distribution systems shall be permitted to substitute for fuses or circuit breakers.

### 82-012 Not Interchangeable

(1) Receptacles, cord connector bodies and attachment plugs used in a closed-loop power distribution system shall be constructed so that they are not interchangeable with other receptacles, cord connector bodies and attachment plugs.

(2) Notwithstanding Subrule (1), where the signalling path between the energy controlling equipment and the utilization equipment is an optical fiber, receptacles are permitted to have configurations corresponding to Diagrams 1 and 2, provided the applied voltage, available to the utilization equipment does not exceed the voltage rating of the receptacle and the current drawn by the utilization equipment does not exceed 80 percent of the current rating of the receptacle.

**82-014 Power Limitation in a Control Circuit.** Control circuits forming part of a closed-loop power distribution system shall be current limited in accordance with Rule 16-200.

### 82-016 Control Cables and Electric Power Conductors

(1) Hybrid power and control cabling are permitted within common jackets provided that the jacket insulation voltage rating is not less than the maximum nominal circuit voltage rating of any conductor in the jacket.

(2) The individual conductors of a hybrid cable shall conform to the requirements of this Code covering their current, voltage and insulation ratings.

(3) Hybrid cables incorporating optical fibers shall be installed in accordance with Section 56.

(4) Control cables and power conductors forming part of a closed-loop power distribution system are permitted to occupy the same cabinet, panelboard, outlet box or similar enclosure provided only connectors specifically approved for hybrid cabling are used.

**82-018 Outlet Box.** Notwithstanding the requirements of Rule 12-3002, an outlet box is not required where a component of a closed-loop power distribution system has been specifically approved for use as a connection box.

## SECTION 84—INTERCONNECTION OF ELECTRIC POWER PRODUCTION SOURCES

**84-000 Scope.** This section is supplementary to, or amendatory of, the general sections of this Code and

applies to the installation of consumer-owned electric power generation equipment connected and operating in parallel with an other supply authority system.

**84-002 General Requirement.** The interconnection arrangements shall be in compliance with a code or standard under a rule or by-law of the supply authority concerning interconnection arrangements.

**84-004 Interconnection.** The outputs of consumer-owned electric power generators shall be interconnected on the load side of the consumer service equipment with protection against possible backfeed into a supply authority system fault.

**84-006 Synchronization of Parallel Systems.** Generators in a parallel system shall be provided with the necessary equipment to establish and maintain a synchronous condition without adverse effect on either system.

**84-008 Loss of Supply Authority Voltage.** Upon loss of voltage in one or more phases of the supply authority system, an electric power generator shall:

- (a) Be automatically disconnected from all ungrounded conductors of the supply authority system; and
- (b) Not be reconnected until the normal voltage of the supply authority system is restored.

#### **84-010 Overcurrent Protection**

(1) Equipment and conductors shall be protected in accordance with the rules of this Code.

(2) Equipment and conductors which are energized from both directions shall be provided with overcurrent protection from each source of supply.

**84-012 Transformer Overcurrent Protection.** Overcurrent protection for a transformer which is energized from both directions shall be provided in accordance with Section 26 by considering first one side of the transformer, then the other side of the transformer, as the primary.

**84-014 System Protection Devices.** Each parallel power generation installation shall be provided with such additional devices as are necessary for system stability and equipment protection.

**84-016 Generator.** The requirements for motors in Section 28 shall apply to:

- (a) Generator guarding; and
- (b) Selection and protection of conductors connected to the generator.

**84-018 Ground Fault Protection.** Ground fault protection shall be provided in accordance with Rule 14-102.

**84-020 Unbalanced Interconnections.** Means shall be provided for automatically disconnecting the output of a three phase generator from all ungrounded conductors of the interconnected system when one of its phases becomes disconnected.

**84-022 Disconnecting Means — Generator.** Disconnecting means shall be provided to disconnect simultaneously all ungrounded conductors of each electric power generator of a parallel system from all circuits supplied by the generator.

**84-024 Disconnecting Means — Supply Authority System.** Disconnecting means shall be provided to disconnect simultaneously all the electric power generators of the parallel system from the supply authority system.

#### **84-026 Disconnecting Means — General**

(1) Disconnecting means shall:

- (a) Be capable of being energized from both sides;
- (b) Plainly indicate whether it is in the open or closed position;
- (c) Have contact operation verifiable by direct visible means;
- (d) Have provision for being locked in the open position;
- (e) Conform to Sections 14, 28 and 36 of this Code if it includes an overcurrent device;
- (f) Be capable of being opened at rated load;
- (g) Be capable of being closed with safety to the operator with a fault on the system;
- (h) Be gang operated in high voltage three phase installations;
- (i) Bear a warning to the effect that inside parts can be energized when the disconnecting means is open; and
- (j) Be readily accessible.

(2) Where a main fusible disconnecting means is used, an isolating switch shall be provided to allow the fuses to be de-energized during handling.

**84-028 Isolating Switch — Equipment.** A means shall be provided to isolate equipment which is energized from both directions from all ungrounded conductors of each source of supply.

#### **84-030 Grounding**

(1) The ground at the service entrance shall be permitted to serve as the ground for the consumer's electric power generation and the grounding shall be in accordance with Section 10 and Section 36.

(2) Notwithstanding Subrule (1), a direct-current power source connected through a solid state inverter shall not be grounded unless the inverter is separated from the network by means of an isolating transformer.

**84-032 Warning Notice and Diagram.** The following notice and diagram shall be installed in a conspicuous place at the consumer's service and at each generator location:

- (a) Warning notice of a parallel system; and
- (b) A single line, permanent, legible diagram of the switching arrangement to indicate the location of all generators of a parallel system, the interlocks with their function and the isolation points.

TABLE 1

(See Rules 4-004, 8-104, 12-012, 12-2212, 26-000  
26-744, 42-008 and 42-016 and Tables 5A, 5B, and 19)

### ALLOWABLE AMPACITIES FOR SINGLE COPPER CONDUCTORS IN FREE AIR

Based on Ambient Temperature of 30°C\*

Size AWG kcmil	Allowable Ampacity†					
	60°C ‡	75°C ‡	85 – 90°C ‡	110°C ‡	125°C ‡	200°C ‡
	Type TW	Types RW75, TW75	Types R90, RW90, T90 NYLON  Single-Conductor Mineral-Insulated Cables§	See Note (3)	See Note (3)	Bare Wire
14	20	20	20	40	40	45
12	25	25	25	50	50	55
10	40	40	40	65	70	75
8	55	65	70	85	90	100
6	80	95	100	120	125	135
4	105	125	135	160	170	180
3	120	145	155	180	195	210
2	140	170	180	210	225	240
1	165	195	210	245	265	280
0	195	230	245	285	305	325
00	225	265	285	330	355	370
000	260	310	330	385	410	430
0000	300	360	385	445	475	510
250	340	405	425	495	530	—
300	375	445	480	555	590	—
350	420	505	530	610	655	—
400	455	545	575	665	710	—
500	515	620	660	765	815	—
600	575	690	740	855	910	—
700	630	755	815	940	1005	—
750	655	785	845	980	1045	—
800	680	815	880	1020	1085	—
900	730	870	940	—	—	—
1000	780	935	1000	1165	1240	—
1250	890	1065	1130	—	—	—
1500	980	1175	1260	1450	—	—
1750	1070	1280	1370	—	—	—
2000	1155	1385	1470	1715	—	—
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7

\*See Table 5A for the correction factors to be applied to the values in Columns 2 to 7 for ambient temperatures over 30°C.

†The ampacity of single-conductor aluminum-sheathed cable is based on the type of insulation used on the copper conductor.

‡These are maximum allowable conductor temperatures for single conductors run in free air and may be used in determining the ampacity of other conductor types in Table 19, which are so run, as follows: From Table 19 determine the maximum allowable conductor temperature for that particular type; then from Table 1 determine the ampacity under the column of corresponding temperature rating.

§These ratings are based on the use of 90°C insulation on the emerging conductors and for sealing. Mineral-insu-

*lated cable may be used at higher temperatures without decrease in allowable ampacity, provided that insulation and sealing material approved for such higher temperature is used and that the use is lawful under Rule 2-030.*

- NOTES: (1) *The ratings of Table 1 may be applied to a conductor mounted on a plane surface of masonry, plaster, wood, or any material having a conductivity not less than 0.4 W/(m·°C).*
- (2) *For correction factors where from 2 to 4 conductors are present and in contact, see Table 5B.*
- (3) *These ampacities are only applicable under special circumstances where the use of insulated conductors having this temperature rating are acceptable.*
- (4) *Type R90 silicone wire may be used in ambient temperatures up to 65°C without applying the correction factors for ambient temperatures above 30°C provided the temperature of the conductor at the terminations does not exceed 90°C.*

TABLE 2

(See Rules 4-004, 8-104, 12-2212, 26-000, 26-744,  
42-008, 42-016 and Tables 5A, and 19)

**ALLOWABLE AMPACITIES FOR  
NOT MORE THAN 3 COPPER CONDUCTORS IN RACEWAY OR CABLE**

Based on Ambient Temperature of 30°C\*

Size AWG kcmil	Allowable Ampacity†‡‡					
	60°C ‡	75°C ‡	85 – 90°C ‡	110°C ‡	125°C ‡	200°C ‡
	Type TW	Types RW75, TW75	Types R90, RW90, T90 NYLON	See Note (1)	See Note (1)	See Note (1)
			Paper			
			Mineral-insulated Cable**			
14	15	15	15	30	30	30
12	20	20	20	35	40	40
10	30	30	30	45	50	55
8	40	45	45	60	65	70
6	55††	65	65	80	85	95
4	70	85	85	105	115	120
3	80	100	105	120	130	145
2	100	115	120	135	145	165
1	110	130	140	160	170	190
0	125	150	155	190	200	225
00	145	175	185	215	230	250
000	165	200	210	245	265	285
0000	195	230	235	275	310	340
250	215	255	265	315	335	—
300	240	285	295	345	380	—
350	260	310	325	390	420	—
400	280	335	345	420	450	—
500	320	380	395	470	500	—
600	355	420	455	525	545	—
700	385	460	490	560	600	—
750	400	475	500	580	620	—
800	410	490	515	600	640	—
900	435	520	555	—	—	—
1000	455	545	585	680	730	—
1250	495	590	645	—	—	—
1500	520	625	700	785	—	—
1750	545	650	735	—	—	—
2000	560	665	775	840	—	—
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7

\*See Table 5A for the correction factors to be applied to the values in Columns 2 to 7 for ambient temperatures over 30°C.

†The ampacity of aluminum-sheathed cable is based on the type of insulation used on the copper conductors.

‡These are maximum allowable conductor temperatures for 1, 2, or 3 conductors run in a raceway, or 2 or 3 conductors run in a cable and may be used in determining the ampacity of other conductor types in Table 19, which are so run, as follows: From Table 19 determine the maximum allowable conductor temperature for that particular type; then from Table 2 determine the ampacity under the column of corresponding temperature rating.

\*\*These ratings are based on the use of 90°C insulation on the emerging conductors and for sealing. Mineral-insulated cable may be used at higher temperatures without decrease in allowable ampacity, provided that insula-

tion and sealing material approved for such higher temperature is used and that the use is lawful under Rule 2-030.

††For 3-wire 120/240- and 120/208-residential services or sub-services the allowable ampacity for size No. 6 AWG shall be 60 A. In this case the 5% adjustment per Rule 8-106(1) cannot be applied.

‡‡See Table 5C for the correction factors to be applied to the values in Columns 2 to 7 where there are more than 3 conductors in a run of raceway or cable.

NOTES: (1) These ampacities are only applicable under special circumstances where the use of insulated conductors having this temperature rating are acceptable.

(2) Type R90 silicone wire may be used in ambient temperatures up to 65°C without applying the correction factors for ambient temperatures above 30°C provided the temperature of the conductor at the terminations does not exceed 90°C.

TABLE 3

(See Rules 4-004, 8-104, 12-012, 12-2212, 26-000,  
26-744, 42-008 and 42-016 and Tables 5A, and 5B)

**ALLOWABLE AMPACITIES FOR  
SINGLE ALUMINUM CONDUCTORS IN FREE AIR**

Based on Ambient Temperature of 30°C\*

Size AWG kcmil	Allowable Ampacity†					
	60°C ‡	75°C ‡	85 – 90°C ‡	110°C ‡	125°C ‡	200°C ‡
	Type TW	Types RW75, TW75	Types R90, RW90, T90 NYLON	See Note (3)	See Note (3)	Bare Wire
12	20	20	20	40	40	45
10	30	30	30	50	55	60
8	45	45	45	65	70	80
6	60	75	80	95	100	105
4	80	100	105	125	135	140
3	95	115	120	140	150	165
2	110	135	140	165	175	185
1	130	155	165	190	205	220
0	150	180	190	220	240	255
00	175	210	220	255	275	290
000	200	240	255	300	320	335
0000	230	280	300	345	370	400
250	265	315	330	385	415	—
300	290	350	375	435	460	—
350	330	395	415	475	510	—
400	355	425	450	520	555	—
500	405	485	515	595	635	—
600	455	545	585	675	720	—
700	500	595	645	745	795	—
750	515	620	670	775	825	—
800	535	645	695	805	855	—
900	580	700	750	—	—	—
1000	625	750	800	930	990	—
1250	710	855	905	—	—	—
1500	795	950	1020	1175	—	—
1750	875	1050	1125	—	—	—
2000	960	1150	1220	1425	—	—
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7

\*See Table 5A for the correction factors to be applied to the values in Columns 2 to 7 for ambient temperatures over 30°C.

†The ampacity of single-conductor aluminum-sheathed cable is based on the type of insulation used on the aluminum conductor.

‡These are maximum allowable conductor temperatures for single conductors run in free air and may be used in determining the ampacity of other conductor types in Table 19, which are so run, as follows: From Table 19 determine the maximum allowable conductor temperature for that particular type; then from Table 3 determine the ampacity under the column of corresponding temperature rating.

NOTES: (1) The ratings of Table 3 may be applied to a conductor mounted on a plane surface of masonry, plas-

- ter, wood, or any material having a conductivity not less than  $0.4 \text{ W/(m}\cdot\text{°C)}$ .*
- (2) *For correction factors where from 2 to 4 conductors are present and in contact, see Table 5B.*
- (3) *These ampacities are only applicable under special circumstances where the use of insulated conductors having this temperature rating are acceptable.*

TABLE 4

(See Rules 4-004, 8-104, 12-2212, 26-000,  
26-744, 42-008, 42-016 and Tables 5A, and 19)

**ALLOWABLE AMPACITIES FOR  
NOT MORE THAN 3 ALUMINUM CONDUCTORS IN RACEWAY OR CABLE**

Based on Ambient Temperature of 30°C\*

Size AWG kcmil	Allowable Ampacity†§					
	60°C ‡	75°C ‡	85 – 90°C ‡	110°C ‡	125°C ‡	200°C ‡
	Type TW	Types RW75, TW75	Types R90, RW90, T90 NYLON Paper	See Note	See Note	See Note
12	15	15	15	25	30	30
10	25	25	25	35	40	45
8	30	30	30	45	50	55
6	40	50	55**	60	65	75
4	55	65	65	80	90	95
3	65	75	75	95	100	115
2	75	90	95**	105	115	130
1	85	100	105	125	135	150
0	100	120	120	150	160	180
00	115	135	145	170	180	200
000	130	155	165	195	210	225
0000	155	180	185	215	245	270
250	170	205	215	250	270	—
300	190	230	240	275	305	—
350	210	250	260	310	335	—
400	225	270	290	335	360	—
500	260	310	330	380	405	—
600	285	340	370	425	440	—
700	310	375	395	455	485	—
750	320	385	405	470	500	—
800	330	395	415	485	520	—
900	355	425	455	—	—	—
1000	375	445	480	560	600	—
1250	405	485	530	—	—	—
1500	435	520	580	650	—	—
1750	455	545	615	—	—	—
2000	470	560	650	705	—	—
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7

\*See Table 5A for the correction factors to be applied to the values in Columns 2 to 7 for ambient temperatures over 30°C.

†The ampacity of aluminum-sheathed cable is based on the type of insulation used on the aluminum conductors.

‡These are maximum allowable conductor temperatures for 1, 2, or 3 conductors run in a raceway, or 2 or 3 conductors run in a cable and may be used in determining the ampacity of other conductor types in Table 19, which are so run, as follows: From Table 19 determine the maximum allowable conductor temperature for the particular type; then from Table 4 determine the ampacity under the column of corresponding temperature rating.

§See Table 5C for the correction factors to be applied to the values in Columns 2 to 7 where there are more than 3 conductors in a run of raceway or cable.

\*\*For 3-wire, 120/240- and 120/208-V residential services or sub-services, the allowable ampacity for sizes No. 2

and No. 6 AWG shall be 100 A and 60 A, respectively. In this case the 5% adjustment per Rule 8-106(1) cannot be applied.

NOTE: These ampacities are only applicable under special circumstances where the use of insulated conductors having this temperature rating are acceptable.

TABLE 5A

(See Rules 4-004(8), and 12-2212 and Tables 1, 2, 3, 4, 57, and 58)

## CORRECTION FACTORS APPLYING TO TABLES 1, 2, 3, AND 4

Ampacity Correction Factors  
for

Ambient Temperatures Above 30°C

(These correction factors apply, column for column, to Tables 1, 2, 3, and 4.

The correction factors in column 2 also apply to Table 57.)

Ambient Temper- ature °C	Correction Factor					
	60°C Type TW	75°C Types RW 75, TW 75	85-90°C Types R 90, RW 90 T 90, NYLON	110°C See Note (2)	125°C See Note (2)	200°C See Note (2)
40	0.82	0.88	0.90	0.94	0.95	1.00
45	0.71	0.82	0.85	0.90	0.92	1.00
50	0.58	0.75	0.80	0.87	0.89	1.00
55	0.41	0.65	0.74	0.83	0.86	1.00
60	—	0.58	0.67	0.79	0.83	0.91
70	—	0.35	0.52	0.71	0.76	0.87
75	—	—	0.43	0.66	0.72	0.86
80	—	—	0.30	0.61	0.69	0.84
90	—	—	—	0.50	0.61	0.80
100	—	—	—	—	0.51	0.77
120	—	—	—	—	—	0.69
140	—	—	—	—	—	0.59
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7

NOTES: (1) The ampacity of a given conductor type at these higher ambient temperatures is obtained by multiplying the appropriate value from Table 1, 2, 3, or 4 by the correction factor for that higher temperature.

(2) These ampacities are only applicable under special circumstances where the use of insulated conductors having this temperature rating are acceptable.

**TABLE 5B***(See Rule 4-004(9) and Table 1)***CORRECTION FACTORS FOR TABLES 1 AND 3**Where from 2 to 4 Single Conductors  
are Present and in Contact

Number of Conductors	Correction Factors
2	0.90
3	0.85
4	0.80

- NOTES: (1) *Where four conductors form a 3-phase-with-neutral system, the values for three conductors may be used. Where three conductors form a single-phase, 3-wire system, the values for two conductors may be used.*
- (2) *Where more than four conductors are in contact, the ratings for conductors in raceways shall be used.*

**TABLE 5C***(See Rules 4-004 and 12-2212 and Tables 2 and 4)***AMPACITY CORRECTION FACTORS FOR TABLES 2 AND 4**

Number of Conductors	Ampacity Correction Factor
1 — 3	1.00
4 — 6	0.80
7 — 24	0.70
25 — 42	0.60
43 and up	0.50

**TABLE 5D***(See Rule 12-2212)***CURRENT RATING CORRECTION FACTORS WHERE SPACINGS ARE  
MAINTAINED (VENTILATED AND LADDER TYPE CABLE TRAYS)**

Number of Conductors or Cables Horizontally	1	2	3	4	5	6
Vertically						
1	1.00	0.93	0.87	0.84	0.83	0.82
2	0.89	0.83	0.79	0.76	0.75	0.74

TABLE 6

(See Rule 12-1014)

**MAXIMUM NUMBER OF CONDUCTORS OF ONE SIZE  
IN TRADE SIZES OF CONDUIT OR TUBING**

NOTE: For ampacity derating factors for more than three conductors in raceways, see Rule 4-004.

Size of Conduit or Tubing — Inches		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	6
Conductor														
Type	Size AWG, kcmil													
	14	3	6	10	18	25	41	58	90	121	155	195	200	200
	12	3	5	9	15	21	35	49	77	103	132	166	200	200
	10	2	4	7	13	17	29	41	64	86	110	138	174	200
	8	1	2	4	8	10	17	25	39	52	67	84	105	152
	6	1	1	2	5	6	11	15	24	32	41	51	64	93
	4	0	1	1	3	5	8	12	18	24	31	39	50	72
RW75	3	0	1	1	3	4	7	10	16	21	28	35	44	63
	2	0	1	1	3	4	6	9	14	19	24	31	38	56
R90	1	0	1	1	1	3	5	7	11	14	18	23	29	42
	0	0	0	1	1	2	4	6	9	12	16	20	25	37
RW75 (XLPE)**	00	0	0	1	1	1	3	5	8	11	14	18	22	32
	000	0	0	1	1	1	3	4	7	9	12	15	19	28
RW90	0000	0	0	0	1	1	2	4	6	8	10	13	16	24
(XLPE)**														
	250	0	0	0	1	1	1	3	5	6	8	10	13	19
RW75EP	300	0	0	0	1	1	1	3	4	5	7	9	11	17
	350	0	0	0	1	1	1	1	3	5	6	8	10	15
RW90 EP	400	0	0	0	0	1	1	1	3	4	6	7	9	14
	500	0	0	0	0	1	1	1	3	4	5	6	8	11

(Continued)

TABLE 6 (Continued)

Size of Conduit or Tubing — Inches		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	6
Conductor														
Type	Size AWG, kcmil													
RW75	600	0	0	0	0	0	1	1	2	3	4	5	6	9
R90	700	0	0	0	0	0	1	1	1	3	4	4	6	8
RW75	750	0	0	0	0	0	1	1	1	3	3	4	5	8
RW75	800	0	0	0	0	0	1	1	1	2	3	4	5	8
(XLPE)**	900	0	0	0	0	0	1	1	1	2	3	4	5	7
RW90	1000	0	0	0	0	0	1	1	1	1	2	3	4	6
(XLPE)**	1250	0	0	0	0	0	0	1	1	1	1	3	3	5
RW75EP	1500	0	0	0	0	0	0	0	1	1	1	2	3	4
RW75EP	1750	0	0	0	0	0	0	0	1	1	1	1	2	4
RW90 EP	2000	0	0	0	0	0	0	0	1	1	1	1	2	3
TWU	14	4	7	11	20	28	46	65	100	135	173	200	200	200
	12	3	6	10	17	23	39	55	85	114	147	184	200	200
	10	3	5	8	14	19	32	45	70	94	121	152	190	200
	8	1	2	4	7	10	16	23	36	48	61	77	97	140
RWU75 (XLPE)	6	1	1	3	5	8	13	18	28	38	49	61	77	111
	4	1	1	2	4	6	10	14	22	29	38	48	60	86
	3	1	1	1	4	5	9	12	19	26	33	42	52	76
	2	0	1	1	3	4	7	11	17	22	29	36	45	65
RWU90 (XLPE)	1	0	1	1	2	3	5	8	12	17	22	27	34	49
	0	0	1	1	1	3	5	7	11	14	19	23	29	43
	00	0	0	1	1	2	4	6	9	12	16	20	25	37

TWU	000	0	0	1	1	1	3	5	8	10	14	17	21	31
	0000	0	0	1	1	1	3	4	6	9	11	14	18	26
	250	0	0	0	1	1	2	3	5	7	9	12	15	21
	300	0	0	0	1	1	1	3	5	6	8	10	13	19
	350	0	0	0	1	1	1	3	4	6	7	9	11	17
	400	0	0	0	1	1	1	2	4	5	6	8	10	15
	500	0	0	0	0	1	1	1	3	4	5	7	9	13
	600	0	0	0	0	1	1	1	2	3	4	6	7	10
	700	0	0	0	0	0	1	1	2	3	4	5	6	9
	750	0	0	0	0	0	1	1	1	3	4	5	6	9
RWU75 (XLPE)	800	0	0	0	0	0	1	1	1	3	3	4	6	8
	900	0	0	0	0	0	1	1	1	2	3	4	5	7
	1000	0	0	0	0	0	1	1	1	2	3	4	5	7
	1250	0	0	0	0	0	0	1	1	1	2	3	4	5
	1500	0	0	0	0	0	0	1	1	1	1	2	3	5
	1750	0	0	0	0	0	0	1	1	1	1	2	3	4
	2000	0	0	0	0	0	0	1	1	1	1	1	2	4
RWU75 (EP)	14	3	5	8	14	20	32	46	71	96	123	155	194	200
	12	2	4	7	12	17	28	40	62	83	107	134	168	200
	10	1	3	6	10	14	24	34	52	70	91	114	143	200
	8	1	1	3	6	8	14	20	31	42	54	68	85	123
	6	1	1	1	3	5	8	11	18	24	31	39	49	70
	4	0	1	1	3	4	6	9	14	19	25	32	40	57
	3	0	1	1	2	3	6	8	13	17	23	28	35	51
	2	0	1	1	2	3	5	7	11	15	20	25	31	46
	1	0	1	1	1	2	4	5	9	12	15	19	24	35
RWU90 (EP)	0	0	0	1	1	1	3	5	8	10	13	17	21	31
	00	0	0	1	1	1	3	4	7	9	12	15	18	27
	000	0	0	1	1	1	2	4	6	8	10	13	16	23
	0000	0	0	0	1	1	2	2	5	7	9	11	14	20

(Continued)

TABLE 6 (Continued)

Size of Conduit or Tubing — Inches		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	6
Conductor														
Type	Size AWG, kcmil													
RWU75 (EP)	250	0	0	0	1	1	1	2	4	5	6	8	10	15
	300	0	0	0	1	1	1	1	3	4	6	7	9	13
	350	0	0	0	0	1	1	1	3	4	5	7	8	12
	400	0	0	0	0	1	1	1	3	4	5	6	8	11
	500	0	0	0	0	0	1	1	2	3	4	5	7	10
	600	0	0	0	0	0	1	1	1	3	4	4	6	8
	700	0	0	0	0	0	1	1	1	2	3	4	5	8
	750	0	0	0	0	0	1	1	1	2	3	4	5	7
	800	0	0	0	0	0	1	1	1	2	3	4	5	7
	900	0	0	0	0	0	1	1	1	1	3	3	4	6
RWU90 (EP)	1000	0	0	0	0	0	0	1	1	1	2	3	4	6
	1250	0	0	0	0	0	0	0	1	1	1	2	3	4
	1500	0	0	0	0	0	0	0	1	1	1	1	2	4
	1750	0	0	0	0	0	0	0	1	1	1	1	2	3
	2000	0	0	0	0	0	0	0	1	1	1	1	1	3
TW	14	9	15	25	44	60	99	142	200	200	200	200	200	200
TW75	12	7	12	20	35	47	78	111	171	200	200	200	200	200
R90	10	5	9	15	26	36	60	85	131	176	200	200	200	200
Silicone	8	2	4	7	12	17	28	40	62	83	107	134	168	200
(Sizes No. 8 and larger)	6	1	1	4	7	10	16	23	36	48	62	78	97	141
	4	1	1	3	5	7	12	17	27	36	47	58	73	106
	3	1	1	2	4	6	10	15	23	31	40	50	63	91

RW75 (XLPE)§	2	1	1	1	2	4	5	9	13	20	27	34	43	54	78
R90 (XLPE)	0	0	1	1	1	2	3	5	8	12	16	21	27	33	49
RW90 (XLPE)§	000	0	0	0	1	1	3	5	7	10	14	18	23	28	41
	0000	0	0	0	1	1	2	4	6	9	12	15	19	24	35
					1	1	1	3	5	7	10	13	16	20	29
TW	250	0	0	0	0	1	1	2	4	6	8	10	13	16	23
TW75	300	0	0	0	0	1	1	2	3	5	7	9	11	14	20
R90 Silicone (Sizes No. 8 and larger)	350	0	0	0	0	1	1	1	3	4	6	8	10	12	18
	400	0	0	0	0	1	1	1	2	4	5	7	9	11	16
	500	0	0	0	0	0	1	1	1	3	4	6	7	9	14
	600	0	0	0	0	0	1	1	1	3	4	5	6	7	11
	700	0	0	0	0	0	0	1	1	2	3	4	5	7	10
	750	0	0	0	0	0	0	1	1	2	3	4	5	6	9
RW75 (XLPE)§	800	0	0	0	0	0	0	1	1	1	3	4	5	6	9
	900	0	0	0	0	0	0	1	1	1	2	3	4	5	8
R90 (XLPE)	1000	0	0	0	0	0	0	1	1	1	2	3	4	5	7
	1250	0	0	0	0	0	0	0	1	1	1	2	3	4	6
RW90 (XLPE)§	1500	0	0	0	0	0	0	0	1	1	1	1	3	3	5
	1750	0	0	0	0	0	0	0	0	1	1	1	2	3	4
	2000	0	0	0	0	0	0	0	0	1	1	1	1	2	4
R90 Silicone	14	5	10	16	27	37	62	88	136	183	200	200	200	200	200
	12	4	8	13	23	31	51	73	112	150	193	195	200	200	200
	10	3	6	10	18	25	41	58	90	121	155	169	200	200	200
T90 NYLON	14	13	24	39	69	93	154	200	200	200	200	200	200	200	200
	12	10	18	29	51	69	115	163	200	200	200	200	200	200	200
	10	6	11	18	32	44	73	104	160	200	200	200	200	200	200
	8	3	5	9	15	21	35	50	78	105	135	169	200	200	200

(Continued)

TABLE 6 (Continued)

Size of Conduit or Tubing — Inches														
	Conductor													
	Type	Size AWG, kcmil	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5
T90 NYLON	6	2	4	6	11	15	25	36	56	76	98	122	154	200
	4	1	2	4	7	9	15	22	34	46	60	75	94	136
	3	1	2	3	6	8	13	19	29	39	51	64	80	116
	2	1	1	2	5	6	11	16	24	33	43	53	67	97
	1	0	1	2	3	5	8	12	19	26	33	42	52	76
	1/0	0	1	1	3	4	7	10	15	20	26	33	42	61
	2/0	0	0	1	2	3	5	8	13	17	22	28	35	51
	3/0	0	0	1	2	3	4	7	10	14	18	23	29	42
	4/0	0	0	1	1	2	4	5	9	12	15	19	24	35
	250	0	0	0	1	2	3	4	7	9	12	15	17	28
	300	0	0	0	1	1	2	4	6	8	10	13	17	24
	350	0	0	0	1	1	2	3	5	7	9	12	15	21
	400	0	0	0	1	1	2	3	4	6	8	10	13	19
	500	0	0	0	0	0	1	1	2	4	5	7	8	11

§ These are the values for Types RW75 XLPE and RW90 XLPE without a jacket.

\*\* These are the values for Types RW75 XLPE and RW90 XLPE with a jacket.

TABLE 7

(See Rule 12-1014)

**SIZE OF CONDUIT OR TUBING FOR A GIVEN NUMBER OF LEAD-SHEATHED CABLES  
(NOT MORE THAN FOUR)**

(Types RL90 and VL)  
(0—600 V)

NOTE: Subject to the range of conductors and types of wires for which aluminum conductors are approved.

Size AWG kcmil Copper or Aluminum	Trade Size of Conduit or Tubing—Inches											
	Single-Conductor Cable			2-Conductor Cable Flat or Round				3-Conductor Cable				
	Number of Cables in One Conduit											
	1	2	3	4	1	2	3	4	1	2	3	4
14	1/2	3/4	3/4	1	3/4	1 1/4	1 1/4	1 1/2	3/4	1 1/4	1 1/2	1 1/2
12	1/2	3/4	3/4	1	3/4	1 1/4	1 1/4	1 1/2	1	1 1/2	1 1/2	2
10	1/2	1	1	1 1/4	1	1 1/2	2	2	1	2	2	2 1/2
8	1/2	1 1/4	1 1/4	1 1/4	1	2	2	2 1/2	1 1/4	2 1/2	2 1/2	3
6	3/4	1 1/4	1 1/4	1 1/2	1 1/4	2 1/2	2 1/2	3	1 1/4	2 1/2	3	3
4	3/4	1 1/4	1 1/2	2	1 1/4	2 1/2	3	3	1 1/2	3	3	3 1/2
3	3/4	1 1/4	1 1/2	2	1 1/4	3	3	3 1/2	1 1/2	3	3	3 1/2
2	1	1 1/2	1 1/2	2	1 1/4	3	3	3 1/2	2	3 1/2	3 1/2	4
1	1	2	2	2	1 1/2	3 1/2	3 1/2	4	2	3 1/2	4	5
0	1	2	2	2 1/2	2	3 1/2	3 1/2	5	2	4	4	5
00	1	2	2	2 1/2	2	3 1/2	4	5	2	4	5	5
000	1 1/4	2	2 1/2	3	2	4	4	5	2 1/2	5	5	6
0000	1 1/4	2 1/2	2 1/2	3	2 1/2	5	5	6	2 1/2	5	5	6

TABLE 7 (Continued)

Size AWG kcmil Copper or Aluminum	Trade Size of Conduit or Tubing—Inches											
	Single-Conductor Cable			2-Conductor Cable Flat or Round				3-Conductor Cable				
	Number of Cables in One Conduit											
	1	2	3	4	1	2	3	4	1	2	3	4
250	1¼	2½	3	3	2½	5	5	6	3	6	6	—
300	1¼	3	3	3½	3	5	6	—	3	6	6	—
350	1½	3	3	3½	3	6	6	—	3	6	6	—
400	1½	3	3	3½	3	6	6	—	3½	6	—	—
500	1½	3	3½	4	3	6	—	—	3½	—	—	—
600	2	3½	4	5	3½	—	—	—	4	—	—	—
700	2	4	4	5	4	—	—	—	4	—	—	—
750	2	4	4	5	4	—	—	—	4	—	—	—
800	2	4	5	5	4	—	—	—	5	—	—	—
900	2½	4	5	5	4	—	—	—	5	—	—	—
1000	2½	5	5	6	5	—	—	—	5	—	—	—
1250	2½	5	5	6	—	—	—	—	—	—	—	—
1500	3	5	6	—	—	—	—	—	—	—	—	—
1750	3	6	6	—	—	—	—	—	—	—	—	—
2000	3	6	6	—	—	—	—	—	—	—	—	—

NOTE: The above conduit or tubing sizes apply to straight runs or to those with nominal off-sets equivalent to not more than two quarter-bends.

TABLE 8

*(See Rule 12-1014)*

## MAXIMUM ALLOWABLE PER CENT CONDUIT AND TUBING FILL

	Maximum Conduit and Tubing Fill Per Cent				
	Number of Conductors or Multi-conductor Cables				
	1	2	3	4	Over 4
Conductors or multi-conductor cables (not lead-sheathed)	53	31	40	40	40
Lead-sheathed conductors or multi-conductor cables	55	30	40	38	35

TABLE 9

(See Rule 12-1014)

## CROSS-SECTIONAL AREAS OF CONDUIT AND TUBING

Trade Size Inches	Internal Diameter Inches	Per Cent Cross-Sectional Area of Conduit and Tubing — Square Inches							
		100%	55%	53%	40%	38%	35%	31%	30%
1/2	0.622	0.30	0.165	0.159	0.120	0.114	0.105	0.09	0.090
3/4	0.824	0.53	0.292	0.281	0.212	0.202	0.185	0.16	0.159
1	1.049	0.86	0.473	0.456	0.344	0.327	0.301	0.27	0.258
1 1/4	1.380	1.50	0.825	0.795	0.600	0.570	0.525	0.47	0.450
1 1/2	1.610	2.04	1.122	1.081	0.816	0.776	0.714	0.63	0.612
2	2.067	3.36	1.848	1.780	1.344	1.277	1.176	1.04	1.008
2 1/2	2.469	4.79	2.635	2.540	1.916	1.820	1.677	1.48	1.437
3	3.068	7.38	4.060	3.910	2.952	2.805	2.585	2.29	2.214
3 1/2	3.548	9.90	5.450	5.250	3.960	3.765	3.465	3.07	2.970
4	4.026	12.72	7.000	6.745	5.088	4.840	4.450	3.94	3.820
4 1/2	4.506	15.94	8.771	8.452	6.378	6.060	5.581	4.94	4.784
5	5.047	20.00	11.000	10.600	8.000	7.600	7.000	6.20	6.000
6	6.065	28.89	15.900	15.320	11.556	10.980	10.120	8.96	8.670

NOTE: The dimensions represent average conditions only and variations will be found in dimensions of conduit and tubing of different manufacture.

TABLE 10

(See Rule 12-1014)

## DIMENSIONS OF INSULATED CONDUCTORS FOR CALCULATING CONDUIT AND TUBING FILL

NOTES: (1) Subject to the range of conductors and types of wires for which aluminum conductors are approved.  
 (2) The dimensions represent average conditions only and variations will be found in dimensions of conductors of different manufacture.

Size AWG kcmil	Rubber (Thermoset)- and Thermoplastic-Insulated Conductors (0—600 V)									
	Types RW75, RW90, RW75 EP, RW90 EP, RW75 XLPE**, RW90 XLPE**		Types TW, TW75, RW75 XLPE\$, RW90 XLPE\$, R90 Silicone, R90 XLPE\$		Types TWU, RWU75 XLPE\$, RWU90 XLPE\$		Types RWU75 EP, RWU90 EP		Type T90 NYLON	
	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches
14	(2/64) 0.171	0.0230	0.131	0.0135	—	—	—	—	—	—
14	(3/64) 0.204*	0.0327*	0.166†	0.0216†	—	—	—	—	—	—
14	—	—	—	—	0.193	0.0293	0.231	0.0419	0.105	0.0087
12	(2/64) 0.188	0.0278	0.148	0.0172	—	—	—	—	—	—
12	(3/64) 0.221*	0.0384*	0.183†	0.0263†	—	—	—	—	—	—
12	—	—	—	—	0.209	0.0343	0.247	0.0479	0.122	0.0117
10	0.242	0.0460	0.168	0.0224	—	—	—	—	—	—
10	—	—	0.204†	0.0327†	—	—	—	—	—	—
10	—	—	—	—	0.230	0.0415	0.268	0.0564	0.153	0.0184
8	0.311	0.0760	0.248	0.0475	0.324	0.0824	0.345	0.0935	0.219	0.0377
6	0.397	0.1238	0.323	0.0819	0.363	0.1035	0.456	0.1633	0.257	0.0519
4	0.452	0.1605	0.372	0.1087	0.412	0.1333	0.505	0.2003	0.328	0.0845
3	0.481	0.1817	0.401	0.1263	0.440	0.1521	0.533	0.2231	0.356	0.0995
2	0.513	0.2067	0.433	0.1473	0.473	0.1757	0.566	0.2516	0.388	0.1182
1	0.588	0.2715	0.508	0.2027	0.544	0.2324	0.649	0.3308	0.450	0.1590
0	0.629	0.3107	0.549	0.2367	0.585	0.2688	0.690	0.3739	0.491	0.1893
00	0.675	0.3578	0.595	0.2781	0.632	0.3137	0.737	0.4266	0.537	0.2265

(Continued)

TABLE 10 (Continued)

Size AWG kcmil	Rubber (Thermoset)- and Thermoplastic-Insulated Conductors (0—600 V)									
	Types RW75, RW90, RW75 EP, RW90 EP, RW75 XLPE**, RW90 XLPE**		Types TW, TW75, RW75 XLPE§, RW90 XLPE§, R90 Silicone, R90 XLPE§		Types TWU, RWU75 XLPEA, RWU90 XLPE§		Types RWU75 EP, RWU90 EP		Type T90 NYLON	
	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches
000	0.727	0.4151	0.647	0.3288	0.684	0.3675	0.789	0.4889	0.588	0.2715
0000	0.785	0.4840	0.705	0.3904	0.744	0.4347	0.849	0.5661	0.646	0.3278
250	0.868	0.5917	0.788	0.4877	0.822	0.5307	0.977	0.7497	0.716	0.4026
300	0.933	0.6837	0.843	0.5581	0.878	0.6055	1.033	0.8381	0.771	0.4669
350	0.985	0.7620	0.895	0.6291	0.930	0.6793	1.085	0.9246	0.822	0.5307
400	1.032	0.8365	0.942	0.6969	0.978	0.7512	1.133	1.0082	0.869	0.5931
500	1.119	0.9834	1.029	0.8316	1.064	0.8891	1.219	1.1671	0.955	0.7163
600	1.233	1.1940	1.143	1.0261	1.180	1.0936	1.301	1.3294		
700	1.304	1.3355	1.214	1.1575	1.252	1.2311	1.373	1.4806		
750	1.339	1.4082	1.249	1.2252	1.287	1.3009	1.408	1.5570		
800	1.372	1.4784	1.282	1.2908	1.321	1.3706	1.442	1.6331		
900	1.435	1.6173	1.345	1.4208	1.385	1.5066	1.506	1.7813		
1000	1.494	1.7531	1.404	1.5482	1.444	1.6377	1.565	1.9236		
1250	1.676	2.2062	1.577	1.9532	1.616	2.0510	1.809	2.5702		
1500	1.801	2.5475	1.702	2.2748	1.741	2.3806	1.934	2.9377		
1750	1.916	2.8895	1.817	2.5930	1.858	2.7113	2.051	3.3039		
2000	2.021	3.2079	1.922	2.9013	1.966	3.0357	2.159	3.6610		
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11

\* These are the dimensions for Types RW75 and R90.

† Dimensions of R90 silicone in sizes No. 14 to 10 AWG. Dimensions of R90 silicone in sizes No. 8 AWG and larger are the same as Type TW.

§ Dimensions for Types RW75 XLPE, R90 XLPE, RW90 XLPE, RWU75 XLPE, and RWU90 XLPE conductors without a jacket.

\*\* Dimensions for Types RW75 XLPE and RW90 XLPE conductors with a jacket.

TABLE 11

(See Rules 4-010, 4-018, 4-038, 4-040, 12-010, 16-112, 22-108, 30-312, 30-414, 32-100, 38-006, 38-008, 38-014, 38-016, 38-020, 44-350, 60-306, 70-108, 76-004, 76-012, 78-058 and 78-104)

CONDITIONS OF USE, VOLTAGE, AND TEMPERATURE RATINGS OF FLEXIBLE CORDS, HEATER CORDS, TINSEL CORDS, EQUIPMENT WIRES, CHRISTMAS-TREE CORDS, PORTABLE POWER CABLES, AND ELEVATOR CABLES

	Use	Kind	CSA Type Designation	Voltage Rating Volts	Temperature Rating		Reference Notes
					°C		
Dry Locations Only	Not for Hard Usage	Heat-Resistant Equipment Wire	GTF	600	125		4
		Equipment Wire	TXF	125	60		—
		Indoor Christmas-Tree Cord	TX PXT	125 125	60 60	— —	
Damp (or Dry) Locations (Continued)	Not for Hard Usage	Flexible Cord	SV	300	60	—	—
			SVO	300	60	3, 14	3, 14
			SVT	300	60	14	14
			SPT-1	300	60	14	14
			SPT-2	300	60	14	14
			SPT-3	300	60	14	14
	Heater Cord	HPN	300	90	3, 14		

(Continued)

TABLE 11 (Continued)

	Use	Kind	CSA Type Designation	Voltage Rating Volts	Temperature Rating		Reference Notes	
					°C			
Damp (or Dry) Locations (Continued)	Not for Hard Usage	Tinsel Cord	TPT	300	60	—	—	
			TST	300	60	—	—	
		Equipment Wire	TEW	600	105	1, 3, 4, 11	1, 3, 4, 11	
			TBS	600	90	4, 11	4, 11	
			SIS	600	90	4, 11	4, 11	
			REW	300	105	1, 3, 6, 11	1, 3, 6, 11	
			REW	600	105	1, 3, 4, 6, 11	1, 3, 4, 6, 11	
			SEWF-1	300	150	1, 5, 11	1, 5, 11	
			SEW-1	300	200	1, 5, 11	1, 5, 11	
			SEWF-2	600	150	4, 5, 11	4, 5, 11	
			SEW-2	600	200	4, 5, 11	4, 5, 11	
			TEWN	600	105	1, 3, 11	1, 3, 11	
	For Hard Usage	Flexible Cord	SJ	300	60	10	10	
			SJO	300	60	3, 10, 14	3, 10, 14	
			SJT	300	60	3, 10, 14	3, 10, 14	
			SPT-3	300	60	—	—	
			Heater Cord	HSJO	300	90	3, 8, 9, 10	3, 8, 9, 10

TABLE 11 (Continued)

	Use	Kind	CSA Type Designation	Voltage Rating Volts	Temperature Rating		Reference Notes
					°C		
(Continued) Damp (or Dry) Locations	For Extra- Hard Usage	Flexible Cord	S	600	60	10 3, 10, 13 3, 10, 14	
			SO	600	60		
			ST	600	60		
	Elevator Cables ("Travelling Cables")	Dryer and Range Cable	DRT	300	60	2	
Wet (or Damp or Dry) Locations (Continued)	Not For Hard Usage	Outdoor Christmas- Tree Cord	CXWT	300	60	— — —	
			CXWT	600	60		
			PXWT	300	60		
		Outdoor Equipment Wire	TXFW	300	60	—	
	For Hard Usage	Outdoor Flexible Cord	SJOW SJTW	300 300	60 60	3, 15 —	

TABLE 11 (Continued)

	Use	Kind	CSA Type Designation	Voltage Rating Volts	Temperature Rating		Reference Notes
					°C		
(Continued) Wet (or Damp or Dry) Locations		Outdoor Flexible Cord	SOOW	600	60		3, 15
			SOW	600	60		3, 15
			STW	600	60		—
	For Extra- Hard Usage	Portable Power Cable	W	2000	90		12
			G	2000	90		12
			G-GC	2000	90		12
			G-BGC	2000	90		12
			SHC-GC	2000	90		12
			SH	(2000, 5000, 8000, 15000, or 25000)	90		12
			SHD		90		12
			SHD-GC		90		12
			SHD-BGC		90		12
					90		12
					90		12
					90		12
					90		12
					90		12
					90		12

NOTES: (1) Types REW, SEW, TEW, and TEWN shall be permitted in raceways for Class 1 circuits in accordance with Rule 16-112(2).

(2) Dryer and range cables are for use only in household dryer and range power-supply cords. These cables are not for sale to the public for general use.

(3) When exposed to oil, the temperature rating of the jacket of Types SVO, SVT, SJO, SJT, HSJO, SO, ST, SGO, SOW, EO, and SJOW and the insulation of Type HPN heater cord and TEWN, REW and TEW equipment wire is limited to 60°C regardless of the temperature rating of the insulation.

(4) Types GTF, REW, TEW, TBS, SIS, SEWF-2 and SEW-2 may be used in raceways in accordance with Rule 30-312(2)(c)(ii).

(5) Types SEWF-F and SEWF-2 with a nickel or a nickel-coated copper conductor have a temperature rating of 200°C. Types SEW-1, SEWF-1, SEW-2 and SEWF-2 with a nickel or a nickel-coated copper conductor may also have a temperature rating of 250°C.

(6) Types having cross-linked PVC insulation are surface marked with the type designation followed by (XLPVC) and types having cross-linked chlorinated polyethylene are surface marked with the type designation followed by (XLCPE).

(7) Types PXT and SPT-1 (Size No. 20 AWG) are not for sale to the public or for general use. They are for decorative lighting and electric clock use respectively.

(8) When Type HSJO heater cord is provided with 90°C polychloroprene insulation (no asbestos insulation), the type designation "CR" and "90C" are surface printed on this cord.

(9) When Type HSJO heater cords are provided with 90°C ethylene propylene rubber insulation (no asbestos insulation), the type designation and "EP" are surface marked on this cord and, in addition, "90C" is also surface marked on such Type HSJO cords.

(10) Types HSJO, SJ, SJO, SJT, S, SO and ST flexible cords are now recognized only as components of equipment.

(11) Suitable for use under Rule 38-006(2) when flame tested and acceptable for use in damp locations.

(12) Natural rubber jackets are not suitable for use in oily environments.

(13) Types SVO, SJO and SO are also available rated 90°C.

(14) Types SVT, SPT-1, SPT-2, and SPT-3, SJT, HPN and ST are also available rated 105°C.

(15) Types SOW, SOOW and SJOW are also available rated 90° and 105°C.

TABLE 12

(See Rules 4-014 and 4-018)

## ALLOWABLE AMPACITY OF FLEXIBLE CORD AND EQUIPMENT WIRE

Based on Ambient Temperature of 30°C.

Size AWG	Allowable Ampacity						
	Flexible Cord				Equipment Wire		
	Tinsel Cords	Christmas- Tree Cord	Types E, EO, ETT	Types PXWT, SV, SVO, SJ†, SJO‡, SJOW, S†, SO‡, SOW, SPT-1, SPT-2, SPT-3, SVT**, SJT†, SJTW, ST†, STW	Types HSJO‡, HPN, DRT	Types TXF, TXFW	Types GTF*, TEW*, SEW*, REW*, TEWN*, SEWF*, TBS*, SIS*
	Types TPT, TST	Types CXWT, PXT		2 Current- Carrying Conductors			
27	0.5	—	—	—	—	—	—
26	—	—	—	—	—	—	1
24	—	—	—	—	—	—	2
22	—	—	—	—	—	—	3
20	—	2	—	2	—	2	4
18	—	5	5	10	10	5	6
16	—	7	7	13	15	7	8
14	—	—	15	18	20	—	17
12	—	—	20	25	25	—	23
10	—	—	25	30	30†	—	28
8	—	—	35	40	40†	—	40
6	—	—	45	55	50†	—	55
4	—	—	60	70	60†	—	70
3	—	—	—	—	—	—	80

TABLE 12 (Continued)

Size AWG	Allowable Ampacity						Equipment Wire
	Flexible Cord				Types HSJO±, HPN, DRT	Types TXF, TXFW	
	Tinsel Cords	Christmas- Tree Cord	Types E, EO, ETT	Types PXWT, SV, SVO, SJ±, SJO±, SJOW, S±, SO±, SOW, SPT-1, SPT-2, SPT-3, SVT**, SJT±, SJTW, ST±, STW			
					2 Current- Carrying Conductors	3 Current- Carrying Conductors*	
2	—	—	80		95	80	—
1	—	—	—		—	—	—
1/0	—	—	—		—	—	—
2/0	—	—	—		—	—	—
3/0	—	—	—		—	—	—
4/0	—	—	—		—	—	—

\*The derating factors of Rule 4-014(1)(b), (c), (d), and (e) are to be applied to these values for the types listed in this Column.

<sup>‡</sup>These current ratings are for Type DRT household dryer and range cables only.

† These current ratings are for Type DKT houseboat anchor and range cables only.

\*\*\*Type SVT 2-conductor No. 17 AWG is recognized with an ampacity of 12 A, as a component of vacuum cleaners with retractable power supply cords.

TABLE 12A

(See Rule 4-040)

**ALLOWABLE AMPACITIES FOR PORTABLE POWER CABLES**  
(AMPERES PER CONDUCTOR)

Power conductor size AWG or kcmil	Single Conductor				Two conductor		Three Conductor				Four conductor	
	2 000 V non- shielded	8 000 V* shielded	15 000 V* shielded	25 000 V* shielded	Two conductor		5 000 V non- shielded	8 000 V shielded	15 000 V shielded	25 000 V shielded	2 000 V	
					2 000 V							
8	83	—	—	—	72	—	59	—	—	—	54	
6	109	112	—	—	95	—	79	93	—	—	72	
4	145	148	—	—	127	—	104	122	—	—	93	
3	167	171	—	—	145	—	120	140	—	—	106	
2	192	195	195	—	167	—	138	159	164	178	122	
1	223	225	225	222	191	—	161	184	187	191	143	
1/0	258	260	259	255	217	—	186	211	215	218	165	
2/0	298	299	298	293	250	—	215	243	246	249	192	
3/0	345	345	343	337	286	—	249	279	283	286	221	
4/0	400	400	397	389	328	—	287	321	325	327	255	
250	445	444	440	430	363	—	320	355	359	360	280	
300	500	496	491	480	409	—	357	398	—	—	310	
350	552	549	543	529	436	—	394	435	—	—	335	
400	600	596	590	572	470	—	430	470	—	—	356	
450	650	610	633	615	497	—	460	503	—	—	377	
500	695	688	678	659	524	—	487	536	—	—	395	
550	737	732	—	—	—	—	—	—	—	—	—	
600	780	779	—	—	—	—	—	—	—	—	—	
650	820	817	—	—	—	—	—	—	—	—	—	
700	855	845	—	—	—	—	—	—	—	—	—	

(Continued)

TABLE 12A (Continued)

Power conductor size AWG or kcmil	Single Conductor				Two conductor 2 000 V	Three Conductor				Four conductor 2 000 V
	2 000 V non-shielded	8 000 V* shielded	15 000 V* shielded	25 000 V* shielded		5 000 V non-shielded	8 000 V shielded	15 000 V shielded	25 000 V shielded	
750	898	889	—	—	—	—	—	—	—	—
800	925	925	—	—	—	—	—	—	—	—
900	1 010	998	—	—	—	—	—	—	—	—
1 000	1 076	1 061	—	—	—	—	—	—	—	—

\*These ampacities are based on single-isolated cable in air-operated with an open-circuited shield.

NOTES: (1) These ampacities are based on a conductor temperature of 90°C and an ambient air temperature of 40°C.  
(2) When cables are used in other ambient temperatures, the ampacities shall be corrected as follows:

Ambient Temperature °C	Correction Factors
10	1.26
20	1.18
30	1.10
40	1.00
50	0.90

TABLE 13

(See Rules 14-104 and 28-204)

**RATING OR SETTING OF OVERCURRENT DEVICES PROTECTING  
CONDUCTORS**

(For general use where not otherwise specifically provided for)

Ampacity of Conductor	Rating or Setting Permitted		Ampacity of Conductor	Rating or Setting Permitted	
	Fuse Amperes	Circuit Breaker Amperes		Fuse Amperes	Circuit Breaker Amperes
0-15	15	15	126-150	150	150
16-20	20	20	151-175	175	175
21-25	25	30	176-200	200	200
26-30	30	30	201-225	225	225
31-35	35	40	226-250	250	250
36-40	40	40	251-275	300	300
41-45	45	50	276-300	300	300
46-50	50	50	301-325	350	350
51-60	60	60	326-350	350	350
61-70	70	70	351-400	400	400
71-80	80	100	401-450	450	500
81-90	90	100	451-500	500	500
91-100	100	100	501-525	600	600
101-110	110	125	526-550	600	600
111-125	125	125	551-600	600	600

TABLE 14

(See Rule 8-210)

**WATTS PER SQUARE METRE AND DEMAND FACTORS FOR  
SERVICES AND FEEDERS FOR VARIOUS TYPES OF OCCUPANCY**

Type of Occupancy	Watts Per Square Metre	Demand Factor Per Cent	
		Service Conductors	Feeders
Store, Restaurant	30	100	100
Office	50	90	100
First 930 m <sup>2</sup>	50	70	90
All in excess of 930 m <sup>2</sup>			
Industrial and Commercial	25	100	100
Church	10	100	100
Garage	10	100	100
Storage Warehouse	5	70	90
Theatre	30	75	95
Armouries and Auditoriums	10	80	100
Banks	50	100	100
Barber Shops and Beauty Parlors	30	90	100
Clubs	20	80	100
Court Houses	20	100	100
Lodges	15	80	100

TABLE 15

(See Rule 36-102)

## BENDING RADII—HIGH-VOLTAGE CABLE

Type of Cable	Cable Diameter Multiplying Factor See Note		
	Up to and Including 1-Inch Diameter	Over 1-Inch Diameter and up to and Including 2-Inch Diameter	Over 2-Inch Diameter
Lead Covered	10	12	12
Corrugated Aluminum Sheathed	10	12	12
Smooth Aluminum Sheathed	12	15	18
Tape Shielded	12	12	12
Flat Tape Armoured	12	12	12
Wire Armoured	12	12	12
Non-shielded	7	7	7
Wire Shielded	7	7	7
Portable Power Cables 5 kV and Less	6	6	6
Portable Power Cables Over 5 kV	8	8	8

NOTE: Bending radii is that measured at the innermost surface and equals the overall diameter of the cable multiplied by the appropriate number shown in Columns 2, 3, and 4.

TABLE 16

(See Rules 10-520, 10-814, 10-816, 10-906, 12-1814,  
24-104, 24-202, 66-202, 68-058 and 68-406)

**MINIMUM SIZE CONDUCTORS, METAL CONDUIT OR ELECTRICAL  
METALLIC TUBING FOR BONDING RACEWAYS AND EQUIPMENT**

Rating or Setting of Overcurrent Device in Circuit Ahead of Equipment, Conduit, Etc.  Not Exceeding— Amperes	Size of Bonding Conductor		Size of Metal Conduit or Pipe  Inches	Electrical Metallic Tubing  Inches
	Copper Wire  AWG	Aluminum Wire  AWG		
20	14	12	$\frac{1}{2}$	$\frac{1}{2}$
30	12	10	$\frac{1}{2}$	$\frac{1}{2}$
40	10	8	$\frac{1}{2}$	1
60	10	8	$\frac{3}{4}$	1
100	8	6	1	1 $\frac{1}{4}$
200	6	4	1 $\frac{1}{4}$	1 $\frac{1}{2}$
300	4	2	1 $\frac{1}{4}$	1 $\frac{1}{2}$
400	3	1	2 $\frac{1}{2}$	2 $\frac{1}{2}$
500	2	0	2 $\frac{1}{2}$	2 $\frac{1}{2}$
600	1	00	3	4
800	0	000	4	4
1000	00	0000	4	4
1200	000	250 kcmil	6	—
1600	0000	350 kcmil	—	—
2000	250 kcmil	400 kcmil	—	—
2500	350 kcmil	500 kcmil	—	—
3000	400 kcmil	600 kcmil	—	—
4000	500 kcmil	800 kcmil	—	—
5000	700 kcmil	1000 kcmil	—	—
6000	800 kcmil	1250 kcmil	—	—

TABLE 17

(See Rules 10-204, 10-206 and 10-812)

**MINIMUM SIZE OF GROUNDING CONDUCTOR FOR AC SYSTEMS  
OR COMMON GROUNDING CONDUCTOR**

<b>Ampacity of Largest Service Conductor or Equivalent for Multiple Conductors</b>	<b>Size of Copper Grounding Conductor AWG</b>
100 or less	8
101 to 125	6
126 to 165	4
166 to 200	3
201 to 260	2
261 to 355	0
356 to 475	00
Over 475	000

NOTE: The ampacity of the largest service conductor, or equivalent if multiple conductors are used, is to be determined from the appropriate Code Table taking into consideration the number of conductors in the conduit and the type of insulation.

TABLE 18

(See Rule 10-812)

**MINIMUM SIZE OF GROUNDING CONDUCTOR FOR SERVICE  
RACEWAY AND SERVICE EQUIPMENT**

<b>Ampacity of Largest Service Conductors or Equivalent for Multiple Conductors Not Exceeding—Amperes</b>	<b>Size of Grounding Conductor</b>		
	<b>Copper Wire AWG</b>	<b>Metal Conduit or Pipe Inches</b>	<b>Electrical Metallic Tubing Inches</b>
60	8	$\frac{3}{4}$	1
100	8	1	$1\frac{1}{4}$
200	6	$1\frac{1}{4}$	$1\frac{1}{2}$
400	3	$2\frac{1}{2}$	$2\frac{1}{2}$
600	1	3	4
800	0	4	4
Over 800	00	6	—

TABLE 19

(See Rules 4-006, 6-300, 12-100, 12-302, 12-404, 12-602, 12-606, 12-902, 12-904, 12-1608, 12-2104, 12-2204, 16-112, 16-210, 22-200, 22-202, 22-204, 22-206, 26-642, 30-312, 30-1004, 30-1102, 32-100, 32-202, 34-216, 38-006, 56-704, 74-004, 78-104, and 80-004 and Tables 1, 2, 3, and 4)

**CONDITIONS OF USE AND MAXIMUM ALLOWABLE CONDUCTOR TEMPERATURE  
OF WIRES AND CABLES OTHER THAN FLEXIBLE CORDS, PORTABLE POWER CABLES, AND EQUIPMENT WIRES**

Conditions of Use	Trade Designation	CSA Type Designation	Maximum Allowable Conductor Temperature	Reference Notes
			°C	
For exposed wiring in dry locations only	Armoured Cable	TECK90 AC90	90 90	4, 10, 12 4, 10, 12
For exposed wiring in dry locations where exposed to corrosive action, if suitable for corrosive conditions encountered	Armoured Cable	TECK90	90	2, 4, 10, 12
For exposed wiring in dry locations where not exposed to mechanical injury	Nonmetallic Sheathed Cable	NMD90	90	23

For exposed wiring in dry locations and in Category 1 and 2 locations, where not exposed to mechanical injury	Nonmetallic Sheathed Cable	NMW, NMWU	60	23
For exposed wiring in dry or damp locations	Rubber (Thermoset-) Insulated Cable	R90	90	4, 9, 10, 11, 12
	Thermoplastic-Insulated Cable	TW	60	4
	Nylon Jacketed Thermoplastic-Insulated Cable	T90 NYLON	90	14
	Nonmetallic Sheathed Cable	NMD90	90	18, 23
For exposed wiring in wet locations	Armoured Cable	TECK90 ACWU90	90 90	4, 7, 10, 12 4, 7, 10, 12
	Rubber (Thermoset-) Insulated Cable	RW75 RL90, RW90	75 90	4, 7, 10, 12 4, 7, 10, 12
	Aluminum-Sheathed Cable	RA75 RA90	75 90	7 4, 7, 10, 12
	Mineral-Insulated Cable	MI, LWMI	90	1, 7, 21
	Thermoplastic-Insulated Cable	TW TW 75	60 75	4, 7 4, 7
	Nonmetallic Sheathed Cable	NMWU	60	7, 8, 23

(Continued)

TABLE 19 (Continued)

Conditions of Use	Trade Designation	CSA Type Designation	Maximum Allowable Conductor Temperature	Reference Notes
			°C	
For exposed wiring where exposed to the weather	Armoured Cable	TECK90	90	4, 10, 12
	Rubber (Thermoset-) Insulated Cable	RW75 R90, RW90	75 90	4, 10, 12 4, 10, 12
	Thermoplastic-Insulated Cable	TW, TWU TWU75	60 75	4 4
	Neutral-Supported Cable	NS-1, NSF-2	75	
	Nonmetallic Sheathed Cable	NMWU	60	8, 23
For concealed wiring dry locations only	Armoured Cable	TECK90 AC90	90 90	4, 10, 12 4, 10, 12
For concealed wiring dry and damp locations	Nonmetallic Sheathed Cable	NMD90	90	18, 23
For concealed wiring in dry locations and in Category 1 and 2 locations where not exposed to mechanical injury	Nonmetallic Sheathed Cable	NMW, NMWU	60	23

For concealed wiring in wet locations	Armoured Cable	TECK90 ACWU90	90 90	4, 7, 10, 12 4, 7, 10, 12
	Nonmetallic Sheathed Cable	NMWU	60	7, 8, 23
	Aluminum-Sheathed Cable	RA75 RA90	75 90	7 4, 7, 10, 12
	Mineral-Insulated Cable	MI, LWMI	90	1, 7, 21
For concealed knob-and-tube wiring in dry or damp locations	Rubber (Thermoset-) Insulated Cable	R90	90	4, 9, 10, 11, 12
	Thermoplastic-Insulated Cable	TW	60	4
	Nylon Jacketed Thermoplastic-Insulated Cable	T90 NYLON	90	14
	Rubber (Thermoset-) Insulated Cable	RW75 RW90	75 90	4, 7, 10, 12 4, 7, 10, 12
For concealed knob-and-tube wiring in wet locations	Thermoplastic-Insulated Cable	TW TW 75	60 75	4, 7 4, 7
	Rubber (Thermoset-) Insulated Cable	R90	90	4, 9, 10, 11, 12
	Thermoplastic-Insulated Cable	TW	60	4
	Nylon Jacketed Thermoplastic-Insulated Cable	T90 NYLON	90	14

(Continued)

TABLE 19 (Continued)

Conditions of Use	Trade Designation	CSA Type Designation	Maximum Allowable Conductor Temperature	Reference Notes
			°C	
For use in raceways, except cable trays, in wet locations	Rubber (Thermoset-) Insulated Cable	RW75, RWU75 RW90, RWU90	75 90	4, 7, 10, 12 4, 7, 10, 12
	Thermoplastic-Insulated Cable	TW, TWU TW75, TWU75	60 75	4, 6, 7 4, 7
For use in ventilated, non-ventilated and ladder type cable trays in dry locations only	Armoured Cable	AC90 TECK90	90 90	4, 10, 12 4, 10, 12
	Armoured Cable	TECK90 ACWU90	90 90	4, 7, 10, 12 4, 7, 10, 12
For use in ventilated, non-ventilated and ladder type cable trays in wet locations	Aluminum-Sheathed Cable	RA75 RA90	75 90	7 4, 7, 10, 12
	Mineral-Insulated Cable	MI, LWMI	90	7
	Rubber (Thermoset-) Insulated Lead-Sheathed Cable	RL90	90	4, 7, 10, 12

For use in ventilated and non-ventilated cable trays in vaults and switch rooms	Rubber (Thermoset-) Insulated Cable	RW75 RW90	75 90	4, 10, 12, 13 4, 10, 12, 13
For direct earth burial (with protection as required by inspection authority)	Armoured Cable	ACWU90 TECK90	90 90	4, 5, 10, 12 4, 5, 10, 12
	Nonmetallic Sheathed Cable	NMWU	60	5, 23
	Rubber (Thermoset-) Insulated Cable	RWU75 RL90, RWU90	75 90	4, 5, 10, 12 4, 5, 10, 12
	Aluminum-Sheathed Cable	RA75 RA90	75 90	<sup>5</sup> 4, 5, 9, 10
For direct earth burial (with protection as required by inspection authority)	Mineral-Insulated Cable	MI, LWMI	90	1, 5, 21
	Thermoplastic-Insulated Cable	TWU TWU75	60 75	4, 5, 6 4, 5
	Airport series lighting cable	ASLC	90	22
	Armoured Cable	AC90 ACWU90 TECK90	90 90 90	19
For service entrance above ground	Aluminum-Sheathed Cable	RA75 RA90	75 90	

(Continued)

TABLE 19 (Continued)

Conditions of Use	Trade Designation	CSA Type Designation	Maximum Allowable Conductor Temperature	Reference Notes
			°C	
For service entrance above ground	Mineral-Insulated Cable	MI	90	1, 21
	Neutral Supported Cable	NS-1 NSF-2	75	
For service entrance below ground	Service-Entrance Cable	USE190 USEB90	90 90	4, 5, 10, 12 4, 5, 10, 12, 15
	Thermoplastic Insulated Wire	TWU TWU75	60 75	4, 5 4, 5
	Rubber (Thermoset-) Insulated Cable	RWU75 RWU90	75 90	4, 5, 10, 12 4, 5, 10, 12
	Armoured Cable	TECK90 ACWU90	90 90	
	Aluminum-Sheathed Cable	RA75 RA90	75 90	5 5
For high-voltage wiring in luminous-tube signs	Luminous-Tube Sign Cable	GTO, GTOL	60	
For use in raceways in hoistways	Hoistway Cable		60	16, 17
For use in Class 2 circuits, in exposed or concealed wiring or use in raceways, in dry or damp locations	Extra-Low-Voltage Control Cable	LVT	60	

For use in Class 2 circuits in dry locations in concealed wiring or exposed wiring where not subject to mechanical injury	Extra-Low-Voltage Control Cable	ELC	60	20
For use when concealed indoors under carpet squares, in dry or damp locations	Flat Conductor Cable	FCC	60	
For use in fire alarm, signal and voice communication circuits where exposed, concealed or used in raceways, indoors in dry or damp locations	Fire Alarm and Signal Cable	FAS FAS 90 FAS 105 FAS 200	60 90 105 200	26
For use in raceways including ventilated, non-ventilated and ladder type cable trays in wet locations and where exposed to weather	Tray Cable	TC	—	28
For use in cable trays in Class I Division 2 and Class II hazardous locations	Tray Cable	TC	—	28

(Continued)

TABLE 19 (Continued)

Conditions of Use	Trade Designation	CSA Type Designation	Maximum Allowable Conductor Temperature	Reference Notes
			°C	
For use in buildings in dry or damp locations, where exposed, concealed or used in raceways, or in plenums	Non-conductive Optical Fiber Cable	OFN	—	29
For use in buildings in dry or damp locations, where exposed, concealed or used in raceways, or in plenums	Conductive Optical Fiber Cable	OFC	—	29

- NOTES: (1) A maximum sheath temperature of 250°C is permissible for mineral-insulated cable, provided the temperature at the terminations does not exceed that specified in Tables 1 and 2. Any protective covering provided shall be suitable for the applicable sheath temperature.
- (2) May be used where exposed to heat, grease, or corrosive fumes, if suitable for the corrosive condition.
- (3) For bare or tinned copper conductors having individual strands smaller in diameter than 0.015 inch, the maximum allowable conductor temperature is 150°C.
- (4) When any of these types have an insulation or covering suitable for installation and use at temperatures down to minus 40°C, they are surface printed with the type designation followed by "MINUS 40C" or "(-40C)".
- (5) Conductors or cable assemblies acceptable for direct earth burial may be used for underground services in accordance with Rule 6-300.
- (6) Types TW and TWU, when provided with a nylon jacket, are also approved for use where adverse conditions may exist, such as in oil refineries and around gasoline storage or pump areas (eg, where subjected to alkaline conditions in the presence of petroleum solvents).

TABLE 19 (Continued)

- (7) Types suitable for use in wet locations may also be used in dry or damp locations.
- (8) Type NMWU cable is not suitable for use in aerial spans.
- (9) Types having silicone rubber insulation are surface marked with the type designation followed by "silicone", eg, R90 (silicone).
- (10) Types having cross-linked polyethylene insulation are surface marked with the type designation followed by "X-Link" or "XLPE", eg, R90 (X-Link) or R90 XLPE.
- (11) Type R90 silicone may be used to connect equipment which is marked as requiring supply conductors having insulation suitable for a temperature up to 125°C.
- (12) Types having ethylene-propylene insulation are surface marked with the type designation followed by "EP", eg, R90 (EP).
- (13) Types RW75 and RW90, when used under Rule 12-2204, are required to be flame tested.
- (14) When exposed to oil, Type T90 NYLON is limited to 60°C.
- (15) Type USEB90 shall have a nonmetallic jacket over concentric neutral conductor.
- (16) Hoistway cables may also be provided with 90°C insulation.
- (17) Except for short runs not exceeding 1.5 m in length, the parallel construction is intended for use in raceways in which the cables are laid in.
- (18) With thermoplastic jacket in damp locations.
- (19) For dry locations only.
- (20) Type ELC cable is limited to Class 2 circuit application as per Rule 16-210.
- (21) Mineral-insulated cable having a stainless steel sheath requires a separate grounding conductor. (See Rule 10-804(e)).
- (22) Type ASLC is for use only in accordance with Section 74.
- (23) NMD90, NMW, and NMWU were previously marked NMD-7, NMW-9, and NMW-10 respectively.
- (26) Types FAS, FAS 90, FAS 105, and FAS 200 may be provided with mechanical protection such as interlock armour or an aluminum sheath, with or without overall thermoplastic covering. A thermoplastic covering shall be provided over the interlock armoured cable when installed in a damp location.
- (28) The maximum allowable conductor temperature for Type TC cables is dependent on the temperature rating of the cable so marked.
- (29) OFN and OFC shall have a minimum cable temperature rating of 60°C. Cables having a temperature rating greater than 60°C shall be permitted provided that the temperature rating is surface marked on the cable.

TABLE 20

(See Rules 12-204 and 12-214)

## SPACINGS FOR CONDUCTORS

Voltage of Circuit	Minimum Distance	
	Millimetres	
Volts	Between Conductors	From Adjacent Surfaces
0 to 300	65	13
301 to 750	100	25

TABLE 21

(See Rule 12-120)

## SUPPORTING OF CONDUCTORS IN VERTICAL RUNS OF RACEWAYS

Conductor Sizes	Maximum Distance—Metres	
	Copper	Aluminum
14 to 8	30	30
6 to 0	30	60
00 to 0000	24	55
250 to 350	18	40
over 350 to 500	15	35
Over 500 to 750	12	30
Over 750	10	25

TABLE 22

(See Rule 12-3038)

## SPACE FOR CONDUCTORS IN BOXES

Size of Conductor  AWG	Usable Space Required for Each Insulated Conductor  Cubic Inches
14	1.5
12	1.75
10	2.25
8	2.75
6	4.5

TABLE 23

(See Rule 12-3038)

## NUMBER OF CONDUCTORS IN BOXES

Box Dimensions Inches Trade Size		Cubic Inch Capacity	Maximum Number of Conductors Size AWG				
			14	12	10	8	6
Octagonal	$4 \times 1\frac{1}{2}$	15	10	8	6	5	3
	$4 \times 2\frac{1}{8}$	21	14	12	9	7	4
Square	$4 \times 1\frac{1}{2}$	21	14	12	9	7	4
	$4 \times 2\frac{1}{8}$	30	20	17	13	10	6
	$4\frac{11}{16} \times 1\frac{1}{2}$	30	20	17	13	10	6
	$4\frac{11}{16} \times 2\frac{1}{8}$	42	28	24	18	15	9
Round	$4 \times \frac{1}{2}$	5	3	2	2	1	1
Device	$3 \times 2 \times 1\frac{1}{2}$	8	5	4	3	2	1
	$3 \times 2 \times 2$	10	6	5	4	3	2
	$3 \times 2 \times 2\frac{1}{4}$	10	6	5	4	3	2
	$3 \times 2 \times 2\frac{1}{2}$	12.5	8	7	5	4	2
	$3 \times 2 \times 3$	15	10	8	6	5	3
	$4 \times 2 \times 1\frac{1}{2}$	9	6	5	4	3	2
	$4 \times 2\frac{1}{8} \times 1\frac{7}{8}$	14	9	8	6	5	3
	$4 \times 2\frac{3}{8} \times 1\frac{7}{8}$	16	10	9	7	5	3

(Continued)

TABLE 23 (Continued)

	Box Dimensions Inches Trade Size	Cubic Inch Capacity	Maximum Number of Conductors Size AWG				
			14	12	10	8	6
Masonry	$3\frac{3}{4} \times 2 \times 2\frac{1}{2}$	14/ gang	9	8	6	5	3
	$3\frac{3}{4} \times 2 \times 3\frac{1}{2}$	21/ gang	14	12	9	7	4
	$4 \times 2\frac{1}{4} \times 2\frac{3}{8}$	20.25/ gang	13	11	9	7	4
	$4 \times 2\frac{1}{4} \times 3\frac{3}{8}$	22.25/ gang	14	12	9	8	4
Through Box	$3\frac{3}{4} \times 2$	6/inch	4	3	2	2	1
Concrete Ring	4	12/ inch	8	6	5	4	2
FS	1 Gang	14	9	8	6	5	3
	1 Gang Tandem	34	22	19	15	12	7
	2 Gang	26	17	14	11	9	5
	3 Gang	41	27	23	18	14	9
	4 Gang	56	37	32	24	20	12
FD	1 Gang	22.5	15	12	10	8	5
	2 Gang	41	27	23	18	14	9
	3 Gang	60	40	34	26	21	13
	4 Gang	85	56	48	37	30	18

TABLE 24

(See Rule 70-130)

## MINIMUM INSULATION RESISTANCES FOR INSTALLATIONS

Installation Copper or Aluminum	Insulation Resistance Ohms
For circuits of No. 14 or No. 12 AWG	1 000 000
For circuits of No. 10 AWG or larger	
25 to 50 A	250 000
51 to 100 A	100 000
101 to 200 A	50 000
201 to 400 A	25 000
401 to 800 A	12 000
Over 800 A	5 000

NOTE: Where lampholders, receptables, fixtures, baseboard heaters or other appliances are connected to the installation or where excessive humidity exists lower insulation resistance values may be expected.

TABLE 25

(See Rules 14-306 and 28-304)

## OVERCURRENT TRIP COILS FOR CIRCUIT BREAKERS AND OVERLOAD DEVICES FOR PROTECTING MOTORS

For Circuit Protection*		System	For Motor Overload Protection		Kind of Motor
Number and Location of Overcurrent Devices (Trip Coils)			Number and Location of Overload Devices such as Trip Coils, Relays, or Thermal Cutouts		
3-trip coils, one in each conductor	3-trip coils, one in each phase	3-wire, 3-phase ac, ungrounded or with grounded neutral 4-wire, 3-phase ac	3 —	one in each phase not to be connected in any neutral conductor	3-phase ac
2-trip coils, one in each phase†	2-trip coils, one in each outside conductor	4-wire, 2-phase ac, ungrounded 3-wire, 2-phase ac	2 —	one in each phase, not to be connected in any neutral or grounded conductor	2-phase ac
4-trip coils, one in each ungrounded conductor	4-trip coils, one in each ungrounded conductor	4-wire, 2-phase ac, with grounded neutral 5-wire, 2-phase ac			
2-trip coils, one in each outside conductor	1-trip coil in each ungrounded conductor	3-wire, 1-phase ac or dc 2-wire ac or dc, ungrounded or with one conductor grounded‡	1 —	in any conductor except a neutral or grounded conductor	1-phase ac or dc
2-trip coils, one in each ungrounded conductor		3-wire, 1-phase ac or dc, with grounded neutral			

\* This will not preclude the use of other arrangements which will provide equivalent protection.

† For Services see Section 6.

‡ This will not prevent the use of one single-pole circuit breaker in each conductor for the protection of an ungrounded 2-wire circuit.

TABLE 26

(See Rules 28-106, 28-200, 28-208, 28-306, 28-308 and 28-808 and Table 29)

**SIZES OF CONDUCTORS, FUSE RATINGS, AND CIRCUIT BREAKER SETTINGS  
FOR MOTOR OVERLOAD PROTECTION AND MOTOR CIRCUIT OVERCURRENT PROTECTION**

(This Table is based on Table 29 and a room temperature of 30°C.)

Overcurrent Protection Maximum Allowable Rating of Fuses and Maximum Allowable Setting of Circuit Breakers of the Time-Limit Type for Motor Circuits																
Full-load Current Rating of Motor  Amperes	Minimum Allowable Ampacity of Conductor	Overload Protection for Running Protection of Motors		Single Phase All Types and Squirrel Cage and Synchronous (Full Voltage, Resistor and Reactor Starting)						Squirrel Cage and Synchronous (Autotransformer and Star-Delta Starting)				DC or Wound Rotor AC		
		Maximum Rating of Type D Fuses  Amperes	Maximum Setting of Overload Devices  Amperes	Time Delay* “D” Fuses  Amperes		Circuit Breaker  Amperes		Non-time Delay Fuses  Amperes		Time Delay* “D” Fuses  Amperes		Circuit Breaker  Amperes	Non-time Delay Fuses  Amperes	Time Delay* “D” Fuses  Amperes	Circuit Breaker  Amperes	
				Non-time Delay Fuses  Amperes	Time Delay* “D” Fuses  Amperes	Non-time Delay Fuses  Amperes	Circuit Breaker  Amperes	Non-time Delay Fuses  Amperes	Time Delay* “D” Fuses  Amperes							
1	1.25	1.125	1.125	15	15	15	15	15	15	15	15	15	15	15	15	
2	2.50	2.25	2.25	15	15	15	15	15	15	15	15	15	15	15	15	
3	3.75	3.5	3.75	15	15	15	15	15	15	15	15	15	15	15	15	
4	5.00	4.5	5.00	15	15	15	15	15	15	15	15	15	15	15	15	
5	6.25	5.6	6.25	15	15	15	15	15	15	15	15	15	15	15	15	
6	7.50	7	7.50	20	15	15	15	15	15	15	15	15	15	15	15	
7	8.75	8	8.75	25	15	15	15	15	15	15	15	15	15	15	15	
8	10.00	9	10.00	25	15	20	20	20	20	15	15	15	15	15	15	
9	11.25	10	11.25	30	20	20	20	25	25	20	15	15	15	15	15	
10	12.50	12	12.50	30	20	20	20	25	25	20	20	15	15	15	15	
11	13.75	12	13.75	30	20	30	30	30	30	20	20	20	20	15	15	
12	15.00	15	15.00	40	25	30	30	30	30	25	20	20	20	15	15	

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 5A	Col. 6	Col. 7	Col. 7A	Col. 8	Col. 9	Col. 9A	Col. 10
13	16.25	15	16.25	40	25	30	35	25	30	20	20	20
14	17.50	17.5	17.50	45	25	30	35	25	30	25	25	20
15	18.75	17.5	18.75	45	30	30	40	30	30	25	25	20
16	20.00	17.5	20.00	50	30	40	40	30	30	25	25	20
17	21.25	20	21.25	60	30	40	45	30	30	30	30	30
18	22.50	20	22.50	60	35	40	45	35	30	30	30	30
19	23.75	20	23.75	60	35	40	50	35	40	30	30	30
20	25.00	25	25.00	60	35	50	50	35	40	30	30	30
22	27.5	25	27.5	60	40	50	60	40	40	35	35	30
24	30.0	30	30.0	80	45	60	60	45	40	40	40	30
26	32.5	30	32.5	80	50	60	70	50	50	40	40	40
28	35.0	35	35.0	90	50	70	70	50	50	45	45	40
30	37.5	35	37.5	90	60	70	70	60	60	45	45	40
32	40.0	40	40.0	100	60	70	70	60	60	50	50	40
34	42.5	40	42.5	110	60	70	70	60	60	60	60	50
36	45.0	45	45.0	110	70	100	80	70	70	60	60	50
38	47.5	45	47.5	125	70	100	80	70	70	60	60	50
40	50.0	50	50.0	125	70	100	80	70	70	60	60	60
42	52.5	50	52.5	125	80	100	90	80	70	70	70	60
44	55.0	50	55.0	125	80	100	90	90	100	70	70	60
46	57.5	50	57.5	150	90	100	100	90	100	70	70	60
48	60.0	60	60.0	150	90	100	100	90	100	80	80	70
50	62.5	60	62.5	150	90	125	100	90	100	80	80	70
52	65.0	60	65.0	175	100	125	110	100	100	80	80	70
54	67.5	60	67.5	175	100	125	110	100	100	90	90	70
56	70.0	70	70.0	175	100	125	125	100	100	90	90	70
58	72.5	70	72.5	175	110	125	125	110	100	90	90	100
60	75.0	70	75.0	200	110	150	125	110	100	90	90	100

(Continued)

TABLE 26 (Continued)

		Overcurrent Protection Maximum Allowable Rating of Fuses and Maximum Allowable Setting of Circuit Breakers of the Time-Limit Type for Motor Circuits										
Full-load Current Rating of Motor  Amperes	Overload Protection for Running Protection of Motors		Single Phase All Types and Squirrel Cage and Synchronous (Full Voltage, Resistor and Reactor Starting)			Squirrel Cage and Synchronous (Autotransformer and Star-Delta Starting)			DC or Wound Rotor AC			
	Minimum Allowable Ampacity of Conductor	Maximum Rating of Type D Fuses  Amperes	Maximum Setting of Overload Devices  Amperes	Non-time Delay Fuses Amperes	Time Delay* “D,” Fuses Amperes	Circuit Breaker Amperes	Non-time Delay Fuses Amperes	Time Delay* “D,” Fuses Amperes	Circuit Breaker Amperes	Non-time Delay Fuses Amperes	Time Delay* “D,” Fuses Amperes	Circuit Breaker Amperes
62	77.5	70	77.5	200	110	150	125	110	125	100	100	100
64	80.0	70	80.0	200	125	150	150	125	125	100	100	100
66	82.5	80	82.5	200	125	150	150	125	125	100	100	100
68	85.0	80	85.0	225	125	150	150	125	125	110	110	100
70	87.5	80	87.5	225	125	175	150	125	125	110	110	100
72	90.0	80	90.0	225	150	175	150	150	125	110	110	100
74	92.5	90	92.5	225	150	175	150	150	125	125	125	100
76	95.0	90	95.0	250	150	175	175	150	150	125	125	100
78	97.5	90	97.5	250	150	175	175	150	150	125	125	100
80	100.0	90	100.0	250	150	200	175	150	150	125	125	100
82	102.5	90	102.5	250	150	200	175	150	150	125	125	125
84	105.0	100	105.0	250	150	200	175	150	150	150	150	125
86	107.5	100	107.5	300	175	200	175	175	150	150	150	125
88	110.0	100	110.0	300	175	200	200	175	175	150	150	125
90	112.5	100	112.5	300	175	225	200	175	175	150	150	125
92	115.0	110	115.0	300	175	225	200	175	175	150	150	125
94	117.5	110	117.5	300	175	225	200	175	175	150	150	125

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 5A	Col. 6	Col. 7	Col. 7A	Col. 8	Col. 9	Col. 9A	Col. 10
96	120.0	110	120.0	300	175	225	200	175	175	150	150	125
98	122.5	110	122.5	300	175	225	200	175	175	150	150	150
100	125.0	110	125.0	300	175	250	200	175	200	150	150	125
105	131.5	125	131.5	350	200	250	225	200	200	175	175	150
110	137.5	125	137.5	350	200	250	225	200	200	175	175	150
115	144.0	125	144.0	350	225	250	250	225	225	175	175	150
120	150.0	125	150.0	400	225	300	250	225	225	200	200	175
125	156.5	150	156.5	400	225	300	250	225	250	200	200	175
130	162.5	150	162.5	400	250	300	300	250	250	200	200	175
135	169.0	150	169.0	450	250	300	300	250	250	225	225	200
140	175.0	150	175.0	450	250	350	300	250	250	225	225	200
145	181.5	175	181.5	450	300	350	300	300	250	225	225	200
150	187.5	175	187.5	450	300	350	300	300	300	225	225	225
155	194	175	194	500	300	350	350	300	300	250	250	225
160	200	175	200	500	300	400	350	300	300	250	250	225
165	206	200	206	500	300	400	350	300	300	250	250	225
170	213	200	213	500	300	400	350	300	300	300	300	250
175	219	200	219	600	350	400	350	350	350	300	300	250
180	225	200	225	600	350	400	400	350	350	300	300	250
185	231	200	231	600	350	400	400	350	350	300	300	250
190	238	225	238	600	350	400	400	350	350	300	300	250
195	244	225	244	600	350	400	400	350	350	300	300	250
200	250	225	250	600	350	500	400	350	400	300	300	300
210	263	250	263	—	400	500	450	400	400	350	350	300
220	275	250	275	—	400	500	450	400	400	350	350	300
230	288	250	288	—	450	500	500	450	400	350	350	300
240	300	250	300	—	450	600	500	450	400	400	400	350
250	313	300	313	—	450	600	500	450	500	400	400	350
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 5A	Col. 6	Col. 7	Col. 7A	Col. 8	Col. 9	Col. 9A	Col. 10

(Continued)

TABLE 26 (Continued)

Full-load Current Rating of Motor Amperes	Minimum Allowable Ampacity of Conductor	Overload Protection for Running Protection of Motors		Overcurrent Protection Maximum Allowable Rating of Fuses and Maximum Allowable Setting of Circuit Breakers of the Time-Limit Type for Motor Circuits					
		Maximum Rating of Type D Fuses Amperes	Maximum Setting of Overload Devices Amperes	Single Phase All Types and Squirrel Cage and Synchronous (Full Voltage, Resistor and Reactor Starting)			Squirrel Cage and Synchronous (Autotransformer and Star-Delta Starting)		
				Non-time Delay Fuses Amperes	Time Delay* "D" Fuses Amperes	Circuit Breaker Amperes	Non-time Delay Fuses Amperes	Time Delay* "D" Fuses Amperes	Circuit Breaker Amperes
260	325	300	325	—	500	600	600	500	500
270	338	300	338	—	500	600	600	500	500
280	350	300	350	—	500	600	600	500	500
290	363	350	363	—	600	600	600	600	600
300	375	350	375	—	600	600	600	600	600
320	400	350	400	—	—	—	—	—	—
340	425	400	425	—	—	—	—	—	—
360	450	400	450	—	—	—	—	—	—
380	475	450	475	—	—	—	—	—	—
400	500	450	500	—	—	—	—	—	—
420	525	500	525	—	—	—	—	—	—
440	550	500	550	—	—	—	—	—	—
460	575	500	575	—	—	—	—	—	—
480	600	500	600	—	—	—	—	—	—
500	625	600	625	—	—	—	—	—	—
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 5A	Col. 6	Col. 7	Col. 7A	Col. 8
				Col. 9	Col. 9A	Col. 10			

\* Time delay "D" fuses are those referred to in Rule 14-200.

TABLE 27

(See Rules 28-106, 28-112 and 38-010)

**FOR DETERMINING CONDUCTOR SIZES FOR MOTORS FOR DIFFERENT  
REQUIREMENTS OF SERVICE**

Classification of Service	Percentage of Nameplate Current Rating of Motor			
	5- Minute Rating	15- Minute Rating	30- and 60- Minute Rating	Continuous Rating
<b>Short-Time Duty.</b> Operating valves, raising or lowering rolls, etc.	110	120	150	—
<b>Intermittent Duty.</b> Freight and passenger elevators, tool heads, pumps, drawbridges, turntables, etc.	85	85	90	140
<b>Periodic Duty.</b> Rolls, ore- and coal-handling machines, etc.	85	90	95	140
<b>Varying Duty</b>	110	120	150	200

NOTE: For motor generator arc welders see Section 42.

TABLE 28

(See Rule 28-112)

**FOR DETERMINING CONDUCTOR SIZES IN THE SECONDARY  
CIRCUITS OF MOTORS**

Resistor Duty Classification	Duty Cycles	Carrying Capacity of Conductors in Per Cent of Full-Load Secondary Circuit
Light Starting Duty	5 sec on 75 sec off	35
Heavy Starting Duty	10 sec on 70 sec off	45
Extra Heavy Starting Duty	15 sec on 75 sec off	55
Light Intermittent Duty	15 sec on 45 sec off	65
Medium Intermittent Duty	15 sec on 30 sec off	75
Heavy Intermittent Duty	15 sec on 15 sec off	90
Continuous Duty	Continuous Duty	110

TABLE 29

(See Rules 28-200, 28-204, 28-208, 28-308 and Table 26)

**RATING OR SETTING OF OVERCURRENT DEVICES FOR THE PROTECTION OF MOTOR BRANCH CIRCUITS**

(Except as permitted in Table 26 where 15-A overcurrent protection for motor branch-circuit conductors exceeds the values specified in the following Table.)

Type of Motor	Per Cent of Full-Load Current		
	Maximum Fuse Rating		Maximum Setting Time-Limit Type Circuit Breaker
	Time Delay* "D" Fuses	Non-time Delay	
<b>Alternating Current</b>			
Single-Phase all types	175	300	250
Squirrel-Cage and Synchronous: Full-Voltage, Resistor and Reactor Starting	175	300	250
Auto-Transformer Starting: Not more than 30 A	175	250	200
More than 30 A	175	200	200
Wound Rotor	150	150	150
<b>Direct Current</b>	150	150	150

\*Time delay "D" fuses are those referred to in Rule 14-200.

- NOTES: (1) The ratings of fuses for the protection of motor branch circuits as given in Table 26, are based upon fuse ratings appearing in the Table above, which also specifies the maximum settings of circuit breakers for the protection of motor branch circuits.
- (2) Synchronous motors of the low-torque low-speed type (usually 450 rmp, or lower) such as are used to drive reciprocating compressors, pumps, etc., and which start up unloaded, do not require a fuse rating or circuit-breaker setting in excess of 200% of full-load current.
- (3) For the use of instantaneous trip (magnetic only) circuit interrupters in motor branch circuits see Rule 28-210.

TABLE 30

(See Rule 36-108)

## MINIMUM CLEARANCES FOR BARE CONDUCTORS—INDOORS

Voltage Class  Kilovolts	Minimum Air Gap Distance in Millimetres	
	From Live Parts to Adjacent Surfaces Other Than Insulation and Bases of Conductor Supports	Between Live Parts (Not Centre-to-Centre)
2.5	100	150
5.0	125	150
7.5	150	175
15.0	175	250
23.0	250	380
34.5	330	480
46.0	430	610
69.0	635	840

TABLE 31

(See Rule 36-108)

## MINIMUM CLEARANCES FOR BARE CONDUCTORS—OUTDOORS

Voltage Class  Kilovolts	Minimum Air Gap Distance in Millimetres	
	From Live Parts to Adjacent Surfaces Other Than Insulation and Bases of Conductor Supports	Between Live Parts (Not Centre-to-Centre)
2.5	225	280
5.0	225	280
7.5	225	280
15.0	250	300
23.0	300	380
34.5	380	480
46.0	460	610
69.0	740	840

TABLE 32

*(See Rule 36-110)***VERTICAL ISOLATION OF UNGUARDED LIVE PARTS**

Voltage Class  Kilovolts	Minimum Isolation by Vertical Clearance from Unguarded Live Parts to Floor or Grade		
	Metres		
	Indoors	Outdoors	
		Light Snow Area*	Heavy Snow Area*
2.5, 5.0, and 7.5	2.5	3	3.7
15.0	2.7	3	3.7
23.0	2.7	3	3.7
34.5	3	3.7	4.3
46.0	3	3.7	4.3
69.0	3	5.5	6.1

TABLE 33

*(See Rules 26-302 and 36-110)***HORIZONTAL CLEARANCES FROM ADJACENT STRUCTURES****(Including Protuberances)**

Voltage Class  Kilovolts	Clearance  Metres
2.5, 5.0, 7.5, 15.0, 23.0, 34.5 and 46.0	3
69.0	3.7

TABLE 34

(See Rule 36-110)

## VERTICAL GROUND CLEARANCES FOR OPEN LINE CONDUCTORS

Voltage Class Kilovolts	Minimum Vertical Clearance Above Ground Metres
2.5, 5.0, 7.5 and 15.0	6.1
23.0	6.1
34.5	6.7
46.0	7
69.0	7.6

TABLE 35

(See Rule 36-212)

SPACING FOR ISOLATING SWITCHES AND FUSES  
ASSEMBLED IN THE FIELD

(Not of the Metal Enclosed Type)

Voltage Class Kilovolts	Minimum Phase Spacing (Centre-to-Centre)	
	Disconnect Switches and Fuses Other Than Expulsion Types Millimetres	Horn-Gap Switches and Expulsion Fuses Millimetres
2.5, 5.0 and 7.5	460	915
15.0	610	915
23.0	760	1220
34.5	915	1525
46.0	1220	1830
69.0	1525	2135

TABLE 36

(See Rule 4-004(5))

**MAXIMUM ALLOWABLE AMPACITY OF NEUTRAL  
SUPPORTED CABLE TYPES NS-1 and NSF-2**

(Based on Ambient Temperatures of 30°C)

Size AWG	Ampacity (Aluminum Conductors)	
	Two Insulated Conductors	Three Insulated Conductors
8	55	45
6	70	60
4	95	80
3	110	95
2	125	105
1	145	120
0	165	140
00	190	160
000	215	185
0000	250	215

NOTES: (1) The above values assume radiation from the sun, a wind velocity of 0.6 m/s and a maximum conductor temperature of 75°C.

(2) For ambients of 40°C and 50°C multiply the above values by 0.88 and 0.75, respectively.

TABLE 37

(See Rule 28-104 and Appendix B)

**MOTOR SUPPLY CONDUCTOR INSULATION  
MINIMUM TEMPERATURE RATING**

(Degrees Celsius)

(Based on Ambient Temperature of 30°C)

Motor Enclosure	Insulation Class Rating			
	A	B	F	H
All except totally enclosed non-ventilated	75	75	90	110
Totally enclosed non-ventilated	75	90	110	110

TABLE 40

(See Rule 12-1006)

**EXTERNAL TAPERED THREADS  
FOR  
RIGID METAL CONDUIT**

Trade Size of Conduit Inches	Number of Threads Per Inch	External Threads	
		Length of Thread	
		Minimum Inches	Maximum Inches
$\frac{1}{2}$	14	0.64 ( $\frac{10}{16}$ )*	0.78 ( $\frac{12}{16}$ )*
$\frac{3}{4}$	14	0.65 ( $\frac{10}{16}$ )	0.79 ( $\frac{13}{16}$ )
1	11½	0.81 ( $\frac{13}{16}$ )	0.98 (1)
1¼	11½	0.84 ( $\frac{13}{16}$ )	1.01 (1)
1½	11½	0.86 ( $\frac{14}{16}$ )	1.03 ( $\frac{1}{16}$ )
2	11½	0.89 ( $\frac{14}{16}$ )	1.06 ( $\frac{1}{16}$ )
2½	8	1.32 ( $\frac{15}{16}$ )	1.57 ( $\frac{19}{16}$ )
3	8	1.36 ( $\frac{16}{16}$ )	1.63 ( $\frac{10}{16}$ )
3½	8	1.43 ( $\frac{17}{16}$ )	1.68 ( $\frac{11}{16}$ )
4	8	1.48 ( $\frac{18}{16}$ )	1.73 ( $\frac{12}{16}$ )
5	8	1.59 ( $\frac{10}{16}$ )	1.84 ( $\frac{13}{16}$ )
6	8	1.70 ( $\frac{11}{16}$ )	1.95 ( $\frac{15}{16}$ )

\*Fractional dimensions in parentheses are approximate.

TABLE 41

(See Rules 10-614 and 70-126)

**MINIMUM SIZE OF BONDING JUMPER  
FOR SERVICE RACEWAYS**

Ampacity of Largest Service Conductor or Equivalent for Multiple Conductors	Size of Bonding Jumper	
	Copper Wire AWG	Aluminum Wire AWG
100 or less	8	6
200	6	4
400	4	2
600	2	0
800	0	00
1000	00	000
1200	000	0000

TABLE 42

*(See Rule 12-2202)*

## LOAD CLASSES

Class	Maximum Design Load for Maximum Associated Support Spacing	
	Design Load Kilograms per Metre	Design Support Spacing Metres
A	37	3
C1	97	3
D1	67	6
E	112	6

TABLE 43

*(See Rule 10-702)*

MINIMUM CONDUCTOR SIZE  
FOR  
CONCRETE ENCASED ELECTRODES

Ampacity of Largest Service Conductor or Equivalent for Multiple Conductors Amperes	Size of Bare Copper Conductor AWG
165 or less	4
166—200	3
201—260	2
261—355	0
356—475	00
Over 475	000

TABLE 44

(See Rules 28-010 and 28-704)

## THREE-PHASE AC MOTORS

3-Phase	AC Motor Full-Load Current in Amperes (See Notes (1), (2), (3), and (5))								
Motor Rating hp	Induction Type, Squirrel Cage and Wound Rotor Amperes				Synchronous Type, Unity Power Factor (See Note (4)) Amperes				
	115 V	230 V	460 V	575 V	2300 V	230 V	460 V	575 V	2300 V
1/2	4	2	1	0.8	—	—	—	—	—
3/4	5.6	2.8	1.4	1.1	—	—	—	—	—
1	7.2	3.6	1.8	1.4	—	—	—	—	—
1 1/2	10.4	5.2	2.6	2.1	—	—	—	—	—
2	13.6	6.8	3.4	2.7	—	—	—	—	—
3	—	9.6	4.8	3.9	—	—	—	—	—
5	—	15.2	7.6	6.1	—	—	—	—	—
7 1/2	—	22	11	9	—	—	—	—	—
10	—	28	14	11	—	—	—	—	—
15	—	42	21	17	—	—	—	—	—
20	—	54	27	22	—	—	—	—	—
25	—	68	34	27	—	54	27	22	—
30	—	80	40	32	—	65	33	26	—
40	—	104	52	41	—	86	43	35	—
50	—	130	65	52	—	108	54	44	—
60	—	154	77	62	16	128	64	51	12
75	—	192	96	77	20	161	81	65	15
100	—	248	124	99	26	211	106	85	20
(Continued)									

(Continued)

TABLE 44 (Continued)

(See Rules 28-010 and 28-704)

## THREE-PHASE AC MOTORS

3-Phase	AC Motor Full-Load Current in Amperes (See Notes (1), (2), (3), and (5))								
Motor Rating  hp	Induction Type, Squirrel Cage and Wound Rotor  Amperes				Synchronous Type, Unity Power Factor (See Note (4))  Amperes				
	115 V	230 V	460 V	575 V	2300 V	230 V	460 V	575 V	2300 V
125	—	312	156	125	31	264	132	106	25
150	—	360	180	144	37	—	158	127	30
200	—	480	240	192	49	—	210	168	40

NOTES: (1) For full-load currents of 208 and 200 V motors, increase the corresponding 230 V motor full-load current by 10 and 15%, respectively.

(2) These values of motor full-load current are to be used as guides only. Where exact values are required (eg. for motor protection), always use those appearing on the motor nameplate.

(3) These values of motor full-load current are for motors running at speeds usual for belted motors and motors with normal torque characteristics. Motors built for especially low speeds or high torques may require more running current, and multi-speed motors will have full-load current varying with speed, in which case the nameplate current rating shall be used.

(4) For 90 and 80% power factor multiply the above figures by 1.1 and 1.25, respectively.

(5) The voltages listed are rated motor voltages. Corresponding Nominal System Voltages are 120, 240, 480 and 600 V. Refer to CSA Standard CAN3-C235-M83, Preferred Voltage Levels for AC Systems, 0 to 50,000 Volts.

TABLE 45

(See Rules 28-010 and 28-704)

## SINGLE-PHASE AC MOTORS

Single-Phase AC Motors Full-Load Current in Amperes (see Notes (1) to (4))		
hp Rating	115 V	230 V
$\frac{1}{6}$	4.4	2.2
$\frac{1}{4}$	5.8	2.9
$\frac{1}{3}$	7.2	3.6
$\frac{1}{2}$	9.8	4.9
$\frac{3}{4}$	13.8	6.9
1	16	8
$1\frac{1}{2}$	20	10
2	24	12
3	34	17
5	56	28
$7\frac{1}{2}$	80	40
10	100	50

- NOTES: (1) For full-load currents of 208 and 200 V motors, increase the corresponding 230 V motor full-load current by 10 and 15%, respectively.
- (2) These values of motor full-load current are to be used as guides only. Where exact values are required (e.g., for motor protection), always use those appearing on the motor nameplate.
- (3) These values of full-load current are for motors running at usual speeds and motors with normal torque characteristics. Motors built for especially low speeds or high torques may have higher full-load currents, and multi-speed motors will have full load current varying with speed, in which case the nameplate current ratings shall be used.
- (4) The voltages listed are rated motor voltages. Corresponding Nominal System Voltages are 120 and 240 V. Refer to CSA Standard CAN3-C235-M83, Preferred Voltage Levels for AC Systems, 0 to 50,000 Volts.

TABLE 48

(See Rule 70-104)

## SIZE OF CONDUIT FOR MOBILE HOMES

Rating of Main Overcurrent Protection  Amperes	Minimum Trade Size of Conduit Inches	
	Excluding System Ground	Including System Ground
50	1	1¼
60	1¼	1¼
100	1¼	1½
150	2	2
200	2	2½

NOTE: These sizes are based on the use of copper conductors.

TABLE 50

(See Rule 26-252)

TRANSFORMERS RATED OVER 600 V HAVING PRIMARY AND  
SECONDARY OVERCURRENT PROTECTION

Transformer Rates Impedance	Maximum Setting or Rating of Overcurrent Device as a Percentage of Rated Current of Transformer				
	Primary Side		Secondary Side		
	Over 600 V		Over 600 V		600 V or Below
	Circuit Breaker Setting Per Cent	Fuse Rating Per Cent	Circuit Breaker Setting Per Cent	Fuse Rating Per Cent	Circuit Breaker Setting or Fuse Rating Per Cent
Not more than 7.5%	600	300	300	150	250
More than 7.5% and not more than 10%	400	200	250	125	250

TABLE 51

(See Rules 36-300 and 36-306)

## MINIMUM SIZE OF BARE COPPER GROUNDING CONDUCTOR

Maximum Available Short Circuit Current (Amperes)	Maximum Fault Duration			
	0.5 Seconds		1.0 Second	
	With Exothermic Weld, Compression or Bolted Joint <sup>(2)</sup>	With Brazed Joint	With Exothermic Weld, Compression or Bolted Joint <sup>(2)</sup>	With Brazed Joint
5 000	6	5	4	3
10 000	3	2	1	1/0
15 000	1	1/0	1/0	3/0
20 000	1/0	2/0	3/0	4/0
25 000	2/0	3/0	4/0	250*
30 000	3/0	4/0	4/0	300*
35 000	4/0	250*	250*	350*
40 000	4/0	300*	300*	400*
50 000	250*	350*	350*	500*
60 000	300*	400*	500*	600*
70 000	350*	500*	500*	700*
80 000	400*	600*	600*	800*
90 000	500*	600*	700*	900*
100 000	500*	700*	700*	1000*

\*Wire size in kcmil, all others in AWG

NOTES: (1) Sizes calculated in accordance with IEEE Standard No. 80, Guide for Safety in AC Substation Grounding.

(2) With connector approved to CSA Standard C22.2 No. 41, Grounding and Bonding Equipment.

TABLE 52

(See Rules 36-304, 36-308, and 36-310)

## TOLERABLE TOUCH AND STEP VOLTAGES

Type of Ground	Resistivity	Fault Duration 0.5 s		Fault Duration 1.0 s	
		Step Voltage	Touch Voltage	Step Voltage	Touch Voltage
	Ohm-Metres	Volts	Volts	Volts	Volts
Wet Organic Soil	10	174	166	123	118
Moist Soil	100	263	188	186	133
Dry Soil	1 000	1 154	405	816	286
150 mm Crushed Stone	3 000	3 143	885	2 216	626
Bed Rock	10 000	10 065	2 569	7 116	1 816

NOTES: (1) Table values calculated in accordance with IEEE Standard No. 80, Guide for Safety in AC Substation Grounding.

(2) A typical substation installation is designed for 0.5 s fault duration and the entire ground surface inside the fence is covered with 150 mm of crushed stone having a resistivity of 3000  $\Omega \cdot m$ .

TABLE 53

*(See Rule 12-012)*

**MINIMUM COVER REQUIREMENTS  
FOR DIRECT BURIED CONDUCTORS,  
CABLES OR RACEWAYS**

Wiring Method	Minimum Cover—Millimetres			
	Non-vehicular Areas		Vehicular Areas	
	750 V or Less	Over 750 V	750 V or Less	Over 750 V
Conductors or cable not having a metal sheath or armour	600	750	900	1000
Conductor or cables having a metal sheath or armour	450	750	600	1000
Raceway	450	750	600	1000

NOTE: *Minimum cover means the distance between the top surface of the conductor, cable, or raceway and the finished grade.*

TABLE 56

(See Rule 2-308)

**MINIMUM WORKING SPACE ABOUT ELECTRICAL  
EQUIPMENT HAVING EXPOSED LIVE PARTS**

<b>Nominal Voltage-to-Ground</b>	<b>Working Space Metres</b>
0 - 750	1.0
751 - 2 500	1.2
2 501 - 9 000	1.5
9 001 - 25 000	1.9
25 001 - 46 000	2.5
46 001 - 69 000	3.0
Over 69 000	3.7

TABLE 57

(See Rule 16-210(6))

**ALLOWABLE AMPACITIES FOR CLASS 2  
COPPER CONDUCTORS**

(Based on Ambient Temperature of 30°C†)

<b>Size</b>	<b>Single Conductors in Free Air</b>	<b>Not More Than 3 Copper Conductors in Raceway or Cable*</b>
<b>AWG</b>	<b>Amperes</b>	<b>Amperes</b>
26	3	1
24	4	2
22	5	2.5
20	7	3.5
19	8	4
18	9	5
16	13	10
<b>Col. 1</b>	<b>Col. 2</b>	<b>Col. 3</b>

\*Where more than 3 conductors are in a raceway or cable, apply the following derating factors to Column 3.

<b>Conductor in Raceway or Cable</b>	<b>Derating Factor</b>
4—6	0.8
7—24	0.7
25—42	0.6
43—50	0.5

†For ambient temperatures over 30°C for Columns 2 and 3, apply the correction factors of Table 5A, Column 2.

TABLE 58

(See Rule 40-002)

**AMPACITIES OF UP TO FOUR INSULATED COPPER CONDUCTORS  
IN RACEWAY OR CABLE FOR SHORT TIME RATED CRANE AND  
HOIST MOTORS**

(Based on Ambient Temperature of 30°C)

Max. Operating Temp.	75°C		90°C		110°C	
Size AWG kcmil						
	60 min	30 min	60 min	30 min	60 min	30 min
16	10	12	—	—	—	—
14	25	26	31	32	38	40
12	30	33	36	40	45	50
10	40	43	49	52	60	65
8	55	60	63	69	73	80
6	76	86	83	94	93	105
5	85	95	95	106	109	121
4	100	117	111	130	126	147
3	120	141	131	153	145	168
2	137	160	148	173	163	190
1	143	175	158	192	177	215
0	190	233	211	259	239	294
00	222	267	245	294	275	331
000	280	341	305	372	339	413
0000	300	369	319	399	352	440
250	364	420	400	461	447	516
300	455	582	497	636	554	707
350	486	646	542	716	616	809
400	538	688	593	760	666	856
450	600	765	660	836	740	930
500	660	847	726	914	815	1004

- NOTES: (1) Allowable ampacities of copper conductors used with 15-minute motors shall be the 30-minute ratings increased by 12%.
- (2) For 5 or more simultaneously energized power conductors in raceway or cable the ampacity of each shall be reduced to 80% of that shown in the Table.
- (3) For conductors subject to ambient temperatures in excess of 30°C the derating factors in Table 5A shall apply to the ampacities shown in this Table.

TABLE 60

(See Rules 62-124, 62-216, 62-300, and 62-400)

CONDITIONS FOR USE FOR HEATING CABLES AND HEATING  
CABLE SETS

Conditions of Use	Application	Heating Cable Set Type Designation
Dry Location	<b>Space Heating Systems</b>	1A
Dry Location	Ceiling	1B*
	Floor embedded in Concrete	
	<b>Surface Heating Systems</b>	
Wet Location	Soil Heating	2A
Wet Location	Snow Melting	2B
Wet Location	Animal Pens	2C
Wet Location	Pool Decks	2D
Wet Location	Roof De-icing	2E
	<b>Pipe and Vessel Surface Heating Systems</b>	
Dry Location	Pipe and Vessel Tracing (Fixed)	3A
Wet Location	Pipe and Vessel Tracing (Fixed)	3B
Damp Location	Pipe and Vessel Tracing (Fixed)	3C
Wet Location	Pipe Freeze Protection (Cord-connected)	3D
	<b>Pipe Interior Heating Systems</b>	
Wet Location	Heating Sets Installed in Metal Pipe, Tanks, etc.	4A
Wet Location	Heating Sets Installed in Thermoplastic Pipe, Tanks, etc.	4B

TABLE 61

(See Rule 68-056)

## MINIMUM CONDUCTOR SEPARATION FROM POOLS

Type of Installation	Minimum Separation in Metres	
	Conductors Buried Directly in Earth	Conductors in Underground Raceways
Electrical Conductors		
0— 750 V	0.75	0.75
751—15 000 V	3.0	1.5
15 001—25 000 V	4.0	2.0

TABLE 62



























(See Rule 38-010(4))

## FEEDER DEMAND FACTORS FOR ELEVATORS

Number of Elevators on a Single Feeder	Demand Factors (DF)
1	1.00
2	0.95
3	0.90
4	0.85
5	0.82
6	0.79
7	0.77
8	0.75
9	0.73
10 or more	0.72



















































NOTE: Demand factors (DF) are based on 50% duty (i.e. half time load half time no load)

**DIAGRAM 1***(See Rules 26-700, 26-702, 26-746, 78-052, 78-102 and 82-012)***CSA CONFIGURATIONS FOR NON-LOCKING RECEPTACLES**

			15 AMPERE	20 AMPERE	30 AMPERE	50 AMPERE	60 AMPERE
			RECEPTACLE	RECEPTACLE	RECEPTACLE	RECEPTACLE	RECEPTACLE
2-POLE 3-WIRE GROUNDING	125 V	5	5-15R 	5-20R 	5-30R 	5-50R 	
	* 250 V	6	6-15R 	6-20R 	6-30R 	6-50R 	
	277 V AC	7	7-15R 	7-20R 	7-30R 	7-50R 	
	347 V AC	24	24-15R 	24-20R 	24-30R 	24-50R 	
3-POLE 4-WIRE GROUNDING	125/ 250 V	14	14-15R 	14-20R 	14-30R 	14-50R 	14-60R 
	3Ø 250 V	15	15-15R 	15-20R 	15-30R 	15-50R 	15-60R 

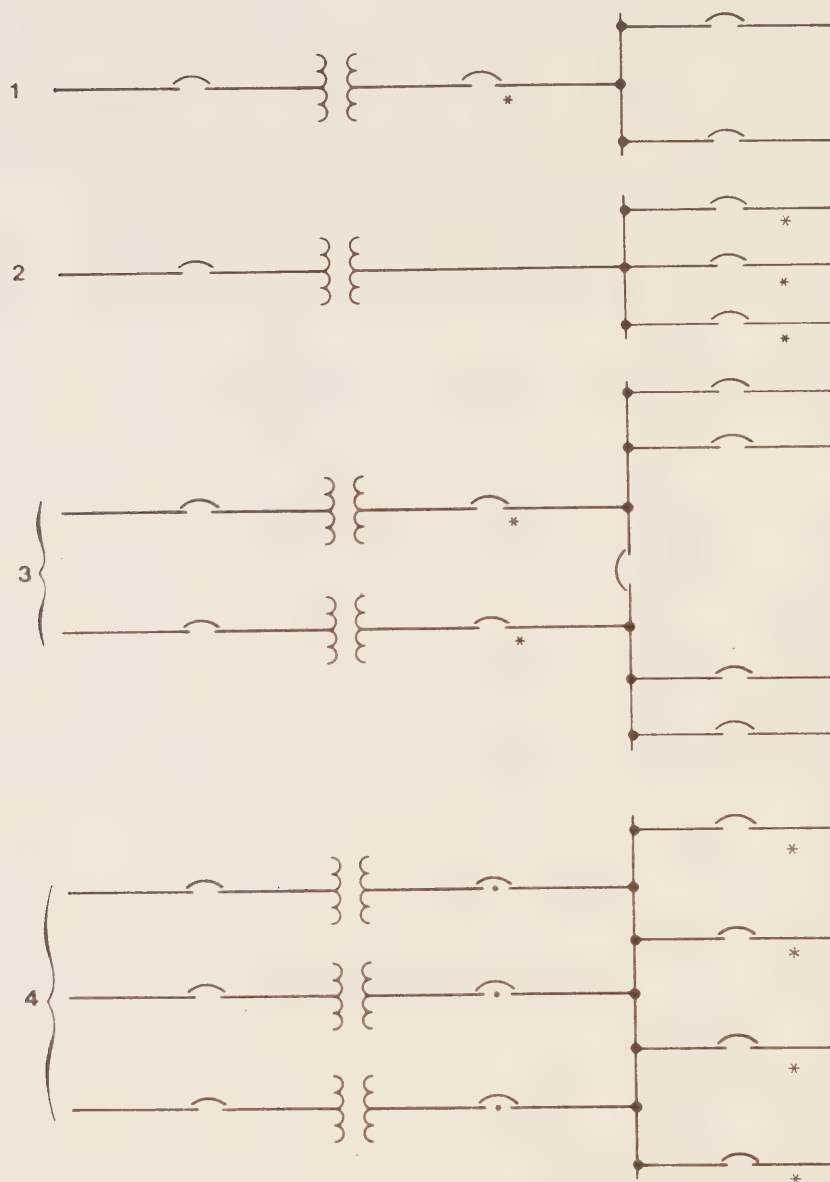
\*For configurations 6-15R, 6-20R, 6-30R and 6-50R, Y denotes identified terminal when used on circuits derived from 3-phase, 4-wire 416-V circuits.



**DIAGRAM 2***(See Rules 12-020, 26-700, 78-052, 78-102, and 82-012)***CSA CONFIGURATIONS FOR LOCKING RECEPTACLES**

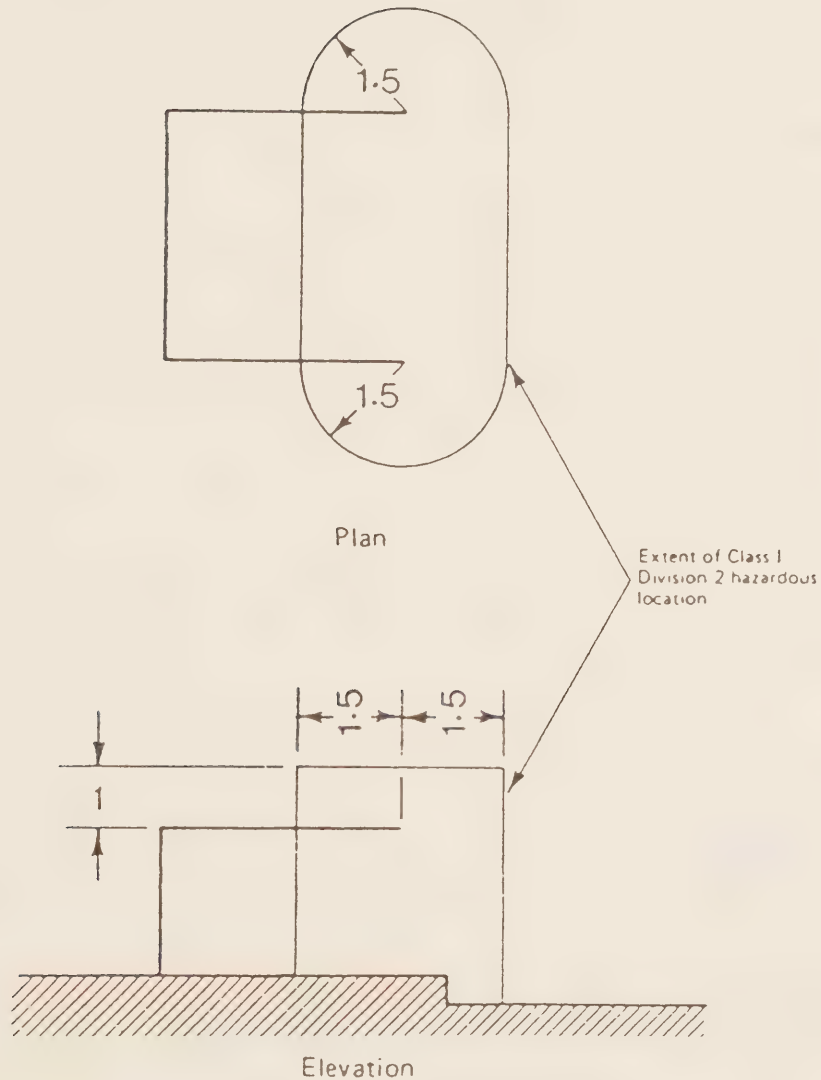
			15 AMPERE	20 AMPERE	30 AMPERE	50 AMPERE	60 AMPERE
			RECEPTACLE	RECEPTACLE	RECEPTACLE	RECEPTACLE	RECEPTACLE
2-POLE 3-WIRE GROUNDING	125 V	L5					
	250 V	L6					
	277 V AC	L7					
	480 V AC	L8					
	600 V AC	L9					
3-POLE 4-WIRE GROUNDING	125/250 V	L14					
	3Ø 250 V	L15					
	3Ø 480 V	L16					
	3Ø 600 V	L17					
4-POLE 5-WIRE GROUNDING	3Ø 208Y/120 V	L21					
	3Ø 480Y/277 V	L22					
	3Ø 600Y/347 V	L23					

## DIAGRAM 3

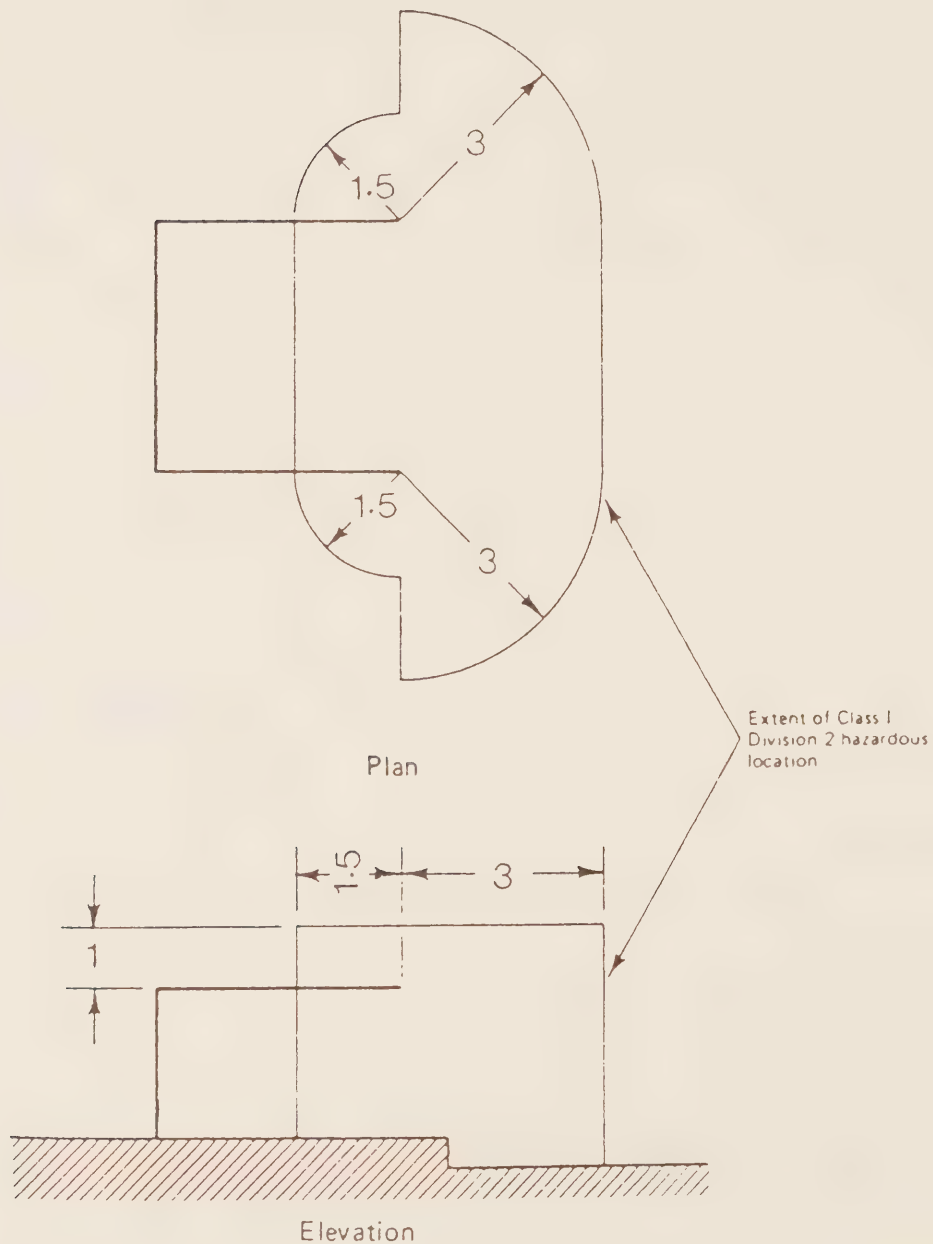
(See Rule 14-102)

ULTIMATE POINT OF CONDUCTOR  
DE-ENERGIZATION

- NOTES: (1) The symbol  represents a circuit breaker, a combination of circuit breaker and fuses, or a fused switch.
- (2) The symbol  represents a network protector which protects against reverse current.
- (3) An asterisk \* indicates the ultimate point beyond which the downstream ungrounded circuit conductors must be de-energized in the event of a ground fault in the circuit fed by such conductors.

**DIAGRAM 4***(See Rule 20-402(2))***EXTENT OF HAZARDOUS LOCATION OPEN FACE  
SPRAY BOOTHS VENTILATION SYSTEM INTERLOCKED**

*Note: All dimensions given are in metres.*

**DIAGRAM 5***(See Rule 20-402(2) (b))***EXTENT OF HAZARDOUS LOCATION OPEN FACE  
SPRAY BOOTHS VENTILATION SYSTEM NOT INTERLOCKED**

*Note: All dimensions given are in metres.*

TABLE 100

(SEE RULE 75-016)

## POLE LIMITATIONS

MAXIMUM TRANSFORMER WEIGHT IN KILOGRAMS

POLE LENGTHS (METRES)	TRANSFORMER MOUNTING	POLE CLASS			
		2	3	4	5
12.5	Direct	-	1022	613	386
	Cluster	1771	1339	840	604
14.0	Direct	1249	749	498	318
	Cluster	1566	1067	766	545

TABLE 101

(SEE RULE 75-016)

MINIMUM CIRCUMFERENCE FROM BUTT END FOR EASTERN CEDAR

POLE LENGTH (METRES)	DISTANCE FROM BUTT END (MILLIMETRES)	MINIMUM CIRCUMFERENCE (MILLIMETRES)
9.5	1800	790
11.0	1800	850
12.5	1800	940

TABLE 102  
(SEE RULE 75-020)  
SETTING OF POLES

Pole Length (Metres)	Minimum Depth of Pole (Metres)
Column 1	Column 2
9.5	1.7
11.0	1.7
12.5	1.85
14.0	2.0
15.5	2.15

TABLE 103

(See Rule 75-060, 75-062)

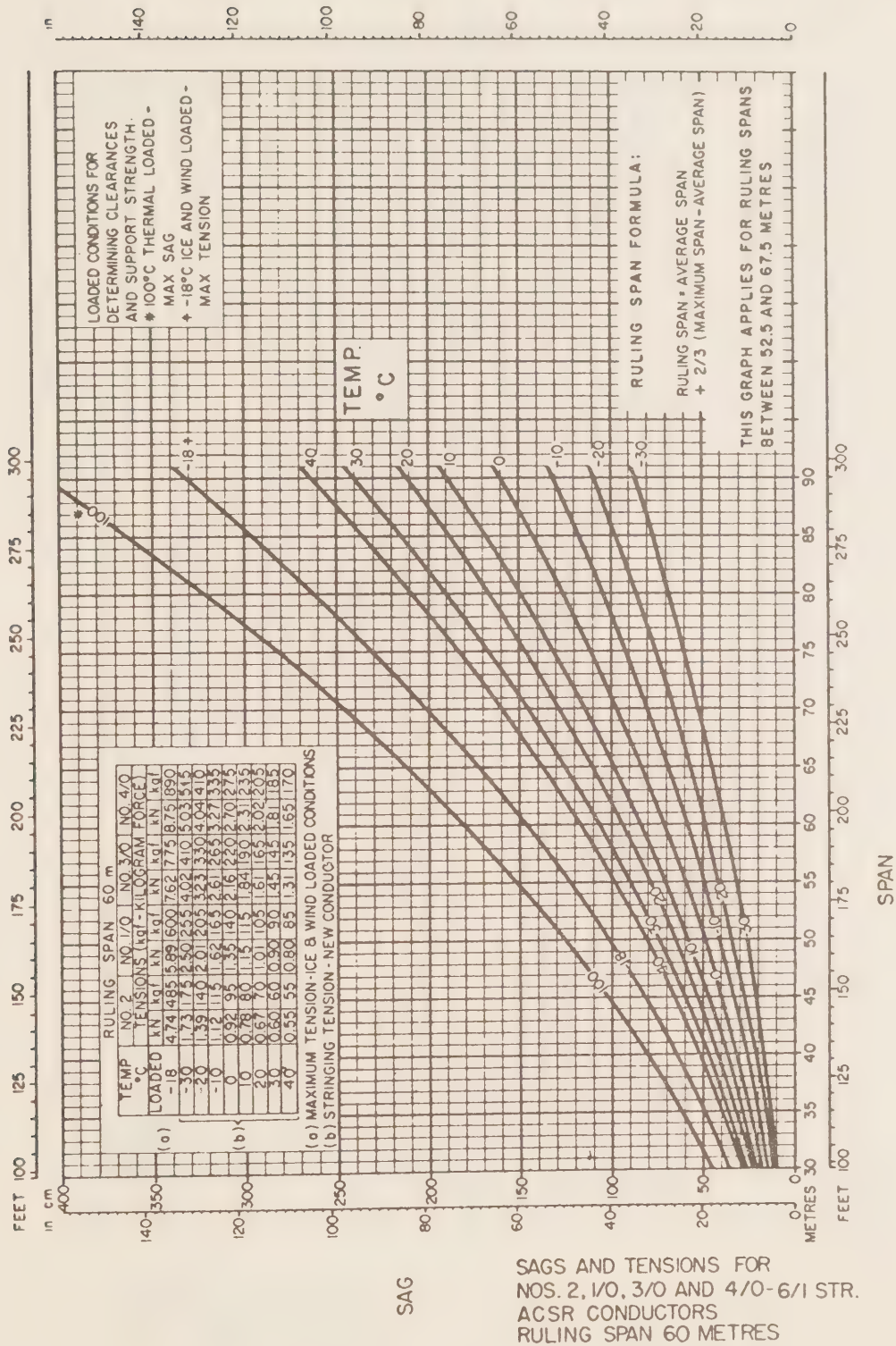
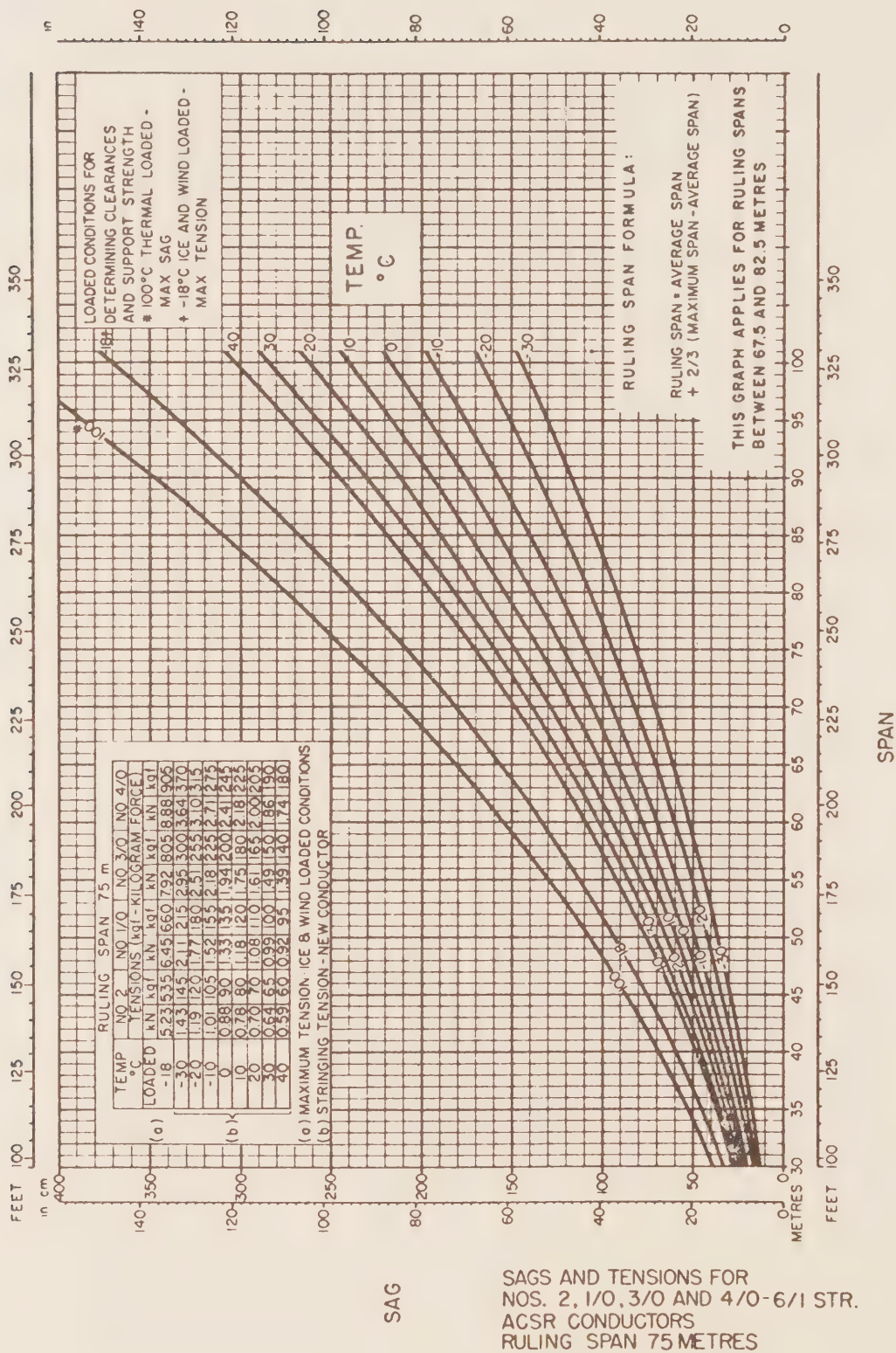


TABLE 104

(See Rule 75-060, 75-062)



SAGS AND TENSIONS FOR  
 NOS. 2, 1/0, 3/0 AND 4/0-6/1 STR.  
 ACSR CONDUCTORS  
 RULING SPAN 75 METRES

(See Rule 75-060, 75-062)



TABLE 106

(See Rule 75-060, 75-062)

## SAG OF NEUTRAL SUPPORTED CABLE

(Ruling Span - 30.0 m)

Temp. °C	Triplex:				Triplex:				Triplex:											
	2-No. 4 Poly. AL.		2-No. 2 Poly. AL.		2-No. 1/0 Poly. AL.		2-No. 3/0 Poly. AL.		2-No. 4/0 Poly. AL.											
	1-No. 4 Bare ACSR		1-No. 2 Bare ACSR		1-No. 1/0 Bare ACSR		1-No. 1/0 Bare ACSR		1-No. 3/0 Bare ACSR											
	Span in Metres (m)		Span in Metres (m)		Span in Metres (m)		Span in Metres (m)		Span in Metres (m)		Span in Metres (m)									
	15	23	30	38	15	23	30	38	15	23	30	38								
	Sag in Millimetres				Sag in Millimetres				Sag in Millimetres											
-29	127	279	508	787	203	432	762	1194	254	584	1016	1575	305	686	1194	1880	406	889	1600	2489
-18	152	330	559	838	203	457	813	1270	279	584	1041	1626	305	686	1219	1905	406	914	1626	2540
0	152	356	635	914	229	483	864	1346	279	610	1092	1702	305	711	1245	1956	406	940	1651	2591
16	178	406	711	1118	229	533	940	1473	279	635	1143	1778	330	711	1270	1981	432	940	1676	2616
32	203	432	762	1194	254	559	991	1549	305	660	1168	1829	330	737	1321	2057	432	965	1727	2692

TABLE 107

(SEE RULE 75-110)

## HAZARDOUS LOCATIONS

Type of Installation	Wiring	Switches	Motors	Fixtures
<u>Farms</u>				
Grain Grinders Rollers Hammer Mills Feed Mixing	As Required by Section 12 and/or Section 22	Dust-Tight	Totally Enclosed	Dust-Tight
<u>Commercial</u>				
Chopping Mills Feed Mixing Plants Flour Mills Alfalfa Grinding and Processing Mills Terminal Grain Elevators	Rigid Metallic Conduit, Mineral Insulated Cable or Aluminum Sheathed Cables as Required by Rule 18-202(1)	Class II, Group 'G'	Class II, Group 'G'	Class II, Group 'G'

TABLE 108

(SEE RULE 75-056)

## SELECTION OF INSULATORS

(Specifications 35, 36, 37)

Line Voltage kV	Pin Type Insulator For Cross-Arm Framing	Post Type Insulator For Armless Framing		Suspension Type Insulators	
		Clamp Top		Poly Meric (Epoxy)	
		Tie Top	Clamp Top	Porcelain or Glass	In-Span Live-Line Openers
		Vert.	Horiz.	Angles switches and dead- ends on grounded steel	Angles switches and dead- ends
		Vert.	Horiz.	See Spec. 37 Item 1(a) or 1(b)	See Spec. 37 Item 2
Up to 50 kV	See Specification 35	See Spec. 36 Item 1	See Spec. 36 Item 2(a) or 2(b)	See Spec. 36 Item 3	See Spec. 37 Item 2

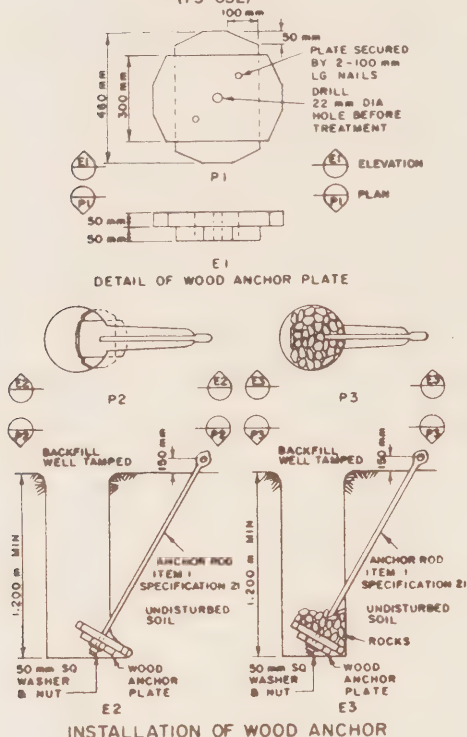
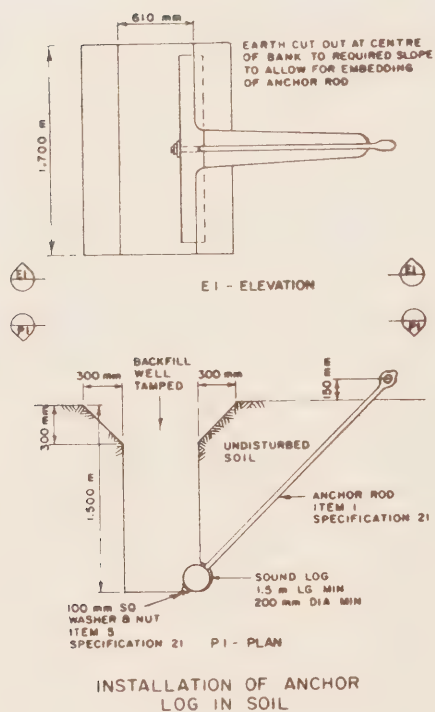
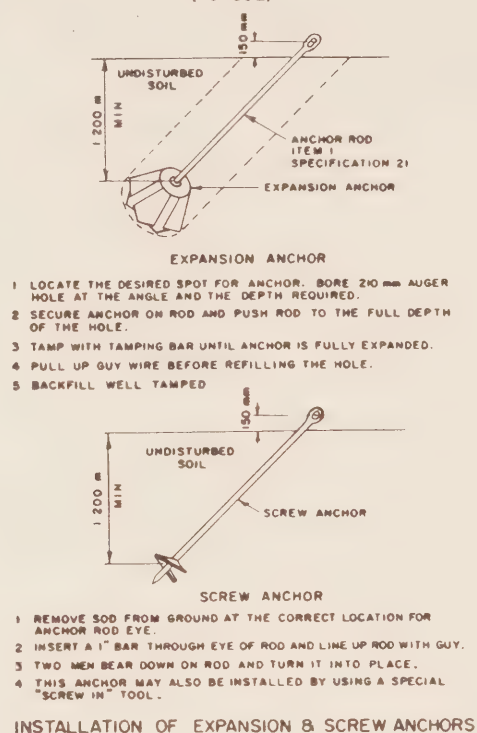
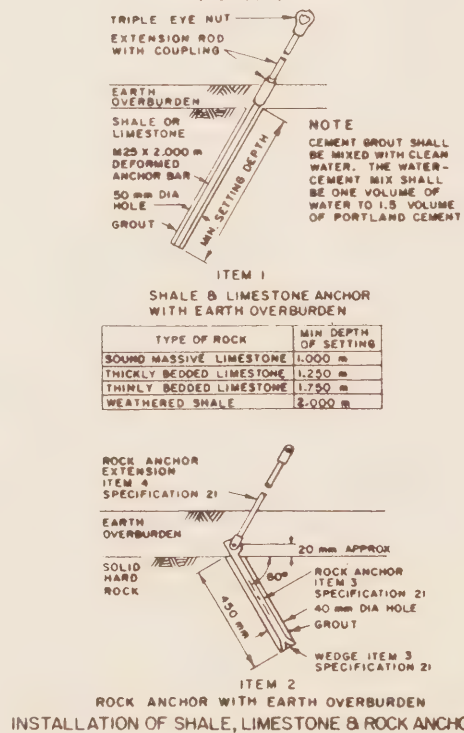
TABLE 109

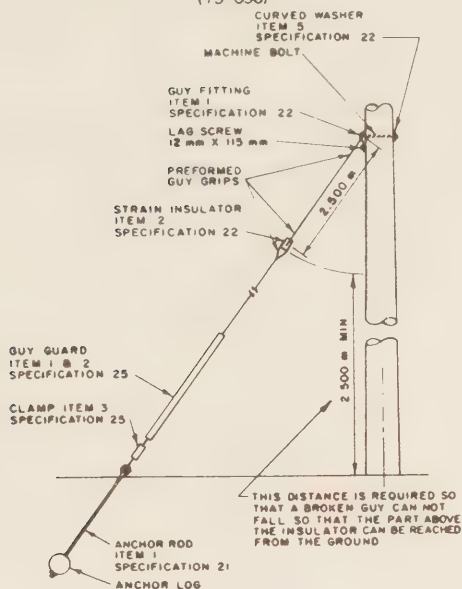
(SEE RULE 75-020)

## DIMENSIONS FOR OFFSETTING POLES

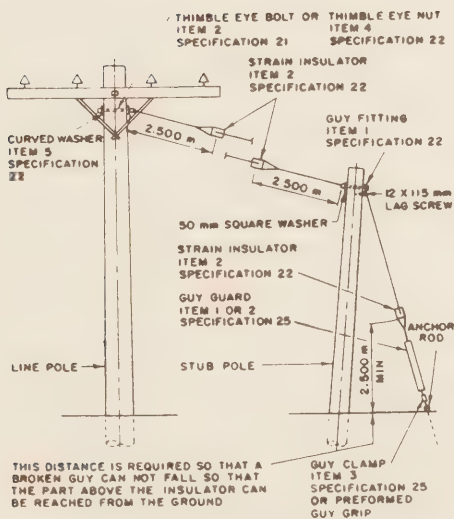
Pole Length (Metres)	Offset and Rake (Millimetres)
9.5	300
11.0	300
12.5	380
14.0	380
15.5	460
17.0	460
19.0	530
21.0	530
23.0	610
25.0	690
27.0	760

NOTE: No "Offset" or "Rake" is required for line deflection angles up to 5°.

SPECIFICATION 1  
(75-032)SPECIFICATION 2  
(75-032)SPECIFICATION 3  
(75-032)SPECIFICATION 4  
(75-032)

SPECIFICATION 5  
(75-036)

STRAIN INSULATOR ON POLE GUYS

SPECIFICATION 6  
(75-040)

SPAN GUY CONSTRUCTION

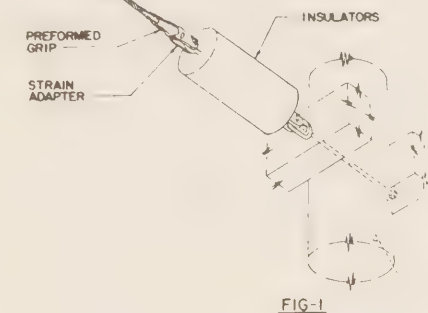
SPECIFICATION 7  
(75-022)

FIG-1

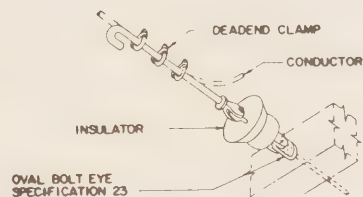
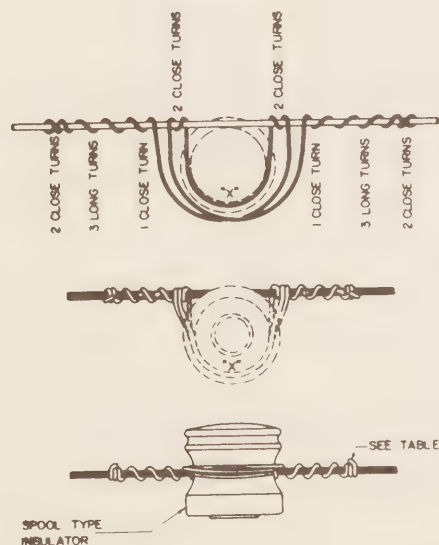


FIG-2

## NOTES

1. THE INSULATOR IS OMITTED FOR THE NEUTRAL CONDUCTOR.
2. PREFORMED GRIPS ARE ACCEPTABLE.

## PRIMARY POLE MOUNTED SUBASSEMBLIES

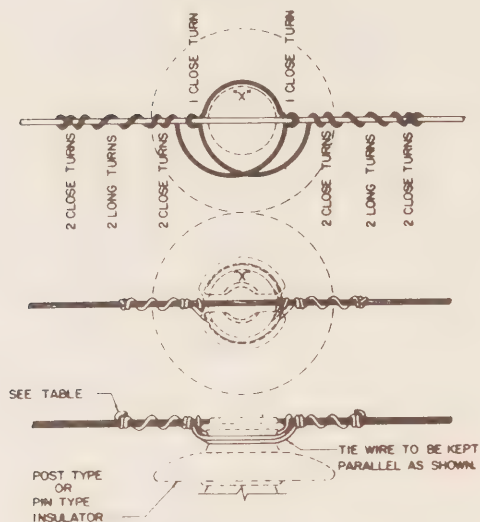
SPECIFICATION 8  
(75-064)

## NOTE

START WITH CENTRE OF THE TIE WIRE AT "X".

LINE CONDUCTOR	TIE WIRE	TIE WIRE LENGTHS
NO. 2-6/1	NO. 4 AWG	1,170 m
NO. 2-4/3, NO. 5/10, 2/0, 3/0-6/1	S.D.A.L.	1,470 m

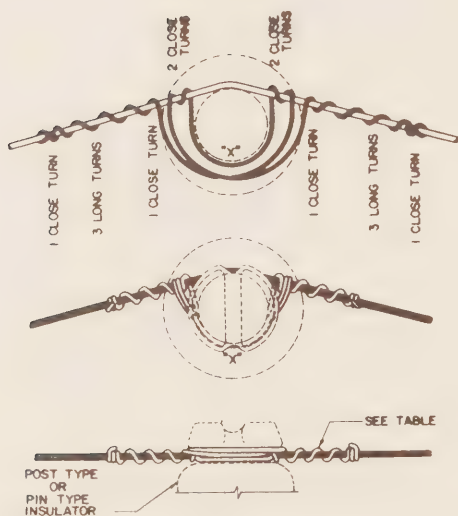
LONG SPOOL TIE FOR ACSR  
CONDUCTORS 3/0 AWG AND SMALLER

SPECIFICATION 9  
(75-064)

NOTE  
START WITH CENTRE OF TIE WIRE AT "X".

LINE CONDUCTOR	TIE WIRE	TIE WIRE LENGTHS	
		1 PIECE INSULATOR	2 PIECE INSULATOR
NO. 2-6/1	NO. 4 AWG	1.020 m	1.170 m
NO. 2-4/3, NO'S 1/0, 2/0, 3/0-6/1	S.D.AL.	1.320 m	1.470 m

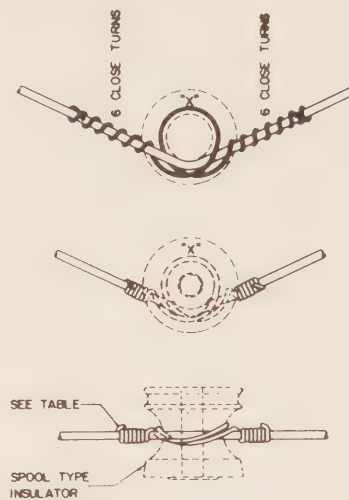
LONG TOP TIE FOR ACSR  
CONDUCTORS 3/0 AWG AND SMALLER

SPECIFICATION 10  
(75-064)

NOTE  
START WITH CENTRE OF TIE WIRE AT "X".

LINE CONDUCTOR	TIE WIRE	TIE WIRE LENGTHS	
		1 PIECE INSULATOR	2 PIECE INSULATOR
NO. 2-6/1	NO. 4 AWG	1.170 m	1.470 m
NO. 2-4/3, NO'S 1/0, 2/0, 3/0-6/1	S.D.AL.	1.470 m	1.780 m

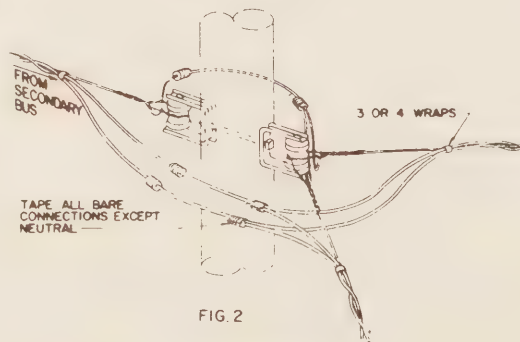
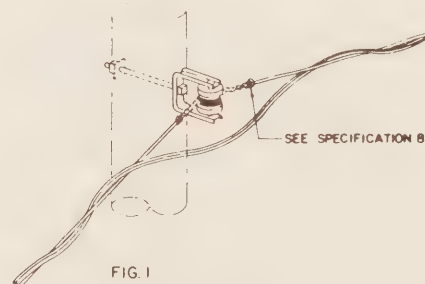
LONG SIDE TIE FOR ACSR  
CONDUCTORS 3/0 AWG AND SMALLER

SPECIFICATION 11  
(75-064)

NOTE  
START WITH CENTRE OF TIE WIRE AT "X".

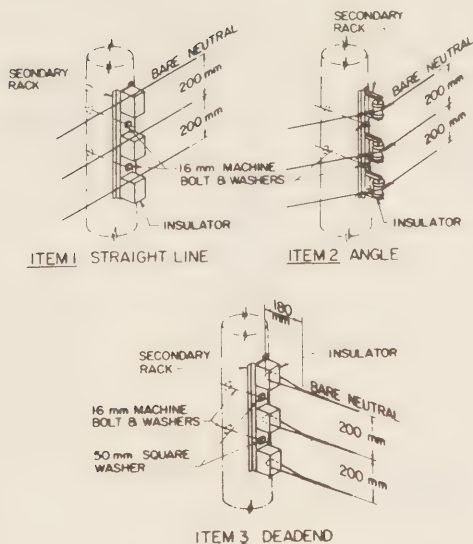
LINE CONDUCTOR	TIE WIRE	TIE WIRE LENGTHS
NO. 2 ACSR 6/1 B. WP. AL	NO. 4 AWG	1.020 m
NO. 1/0 ACSR 6/1 B. WP. AL	S.D.AL.	1.020 m
NO. 3/0 WP. AL		1.170 m
NO. 4/0 WP. AL		1.320 m

SECONDARY SPOOL TIE  
FOR ALL WEATHERPROOF CONDUCTORS

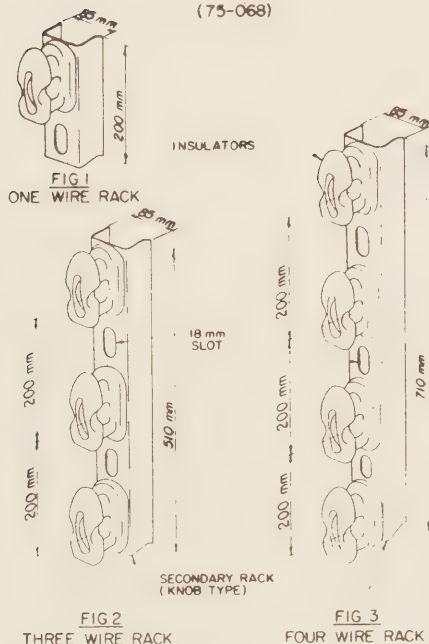
SPECIFICATION 12  
(75-054, 066)

NOTE  
COMPRESSION CONNECTORS SHALL BE USED  
WHERE REQUIRED BY RULE 75-066.

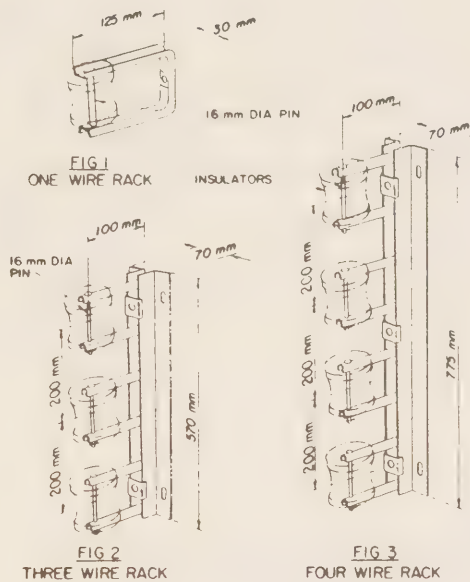
INSTALLATION OF NEUTRAL SUPPORTED CABLE

SPECIFICATION 13  
(75-054)

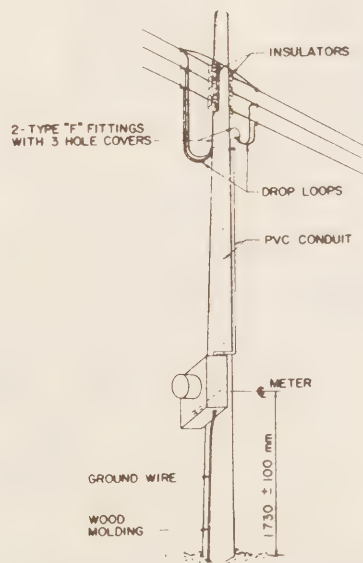
SECONDARY SERVICE RACK

SPECIFICATION 14  
(75-068)

SECONDARY SERVICE RACK

SPECIFICATION 15  
(75-054, -068)

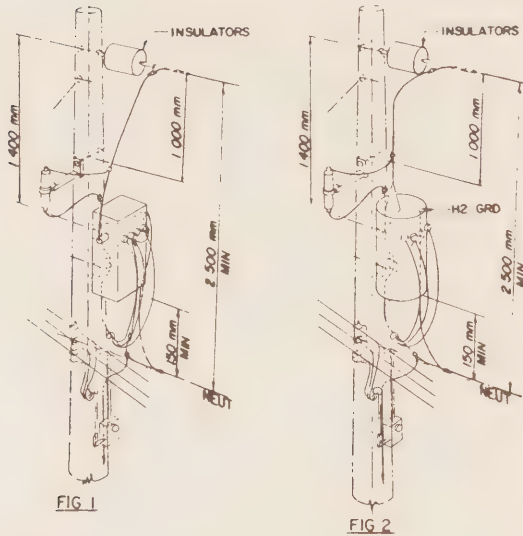
SECONDARY SERVICE RACK

SPECIFICATION 16  
(75-070)

## NOTES

1. IF METALLIC CONDUIT IS USED, ALL CONDUCTORS MUST BE IN BOTH LINE AND LOAD SIDE IN ACCORDANCE WITH RULE 12-1004 OF E.S.C.
2. COMPRESSION CONNECTORS SHALL BE USED ON ALL OVERHEAD CURRENT CARRYING CONNECTIONS.

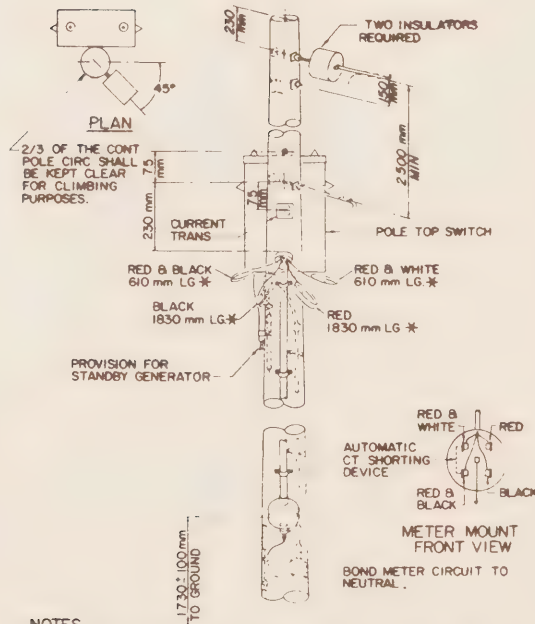
INSTALLATION OF A SERVICE  
BOX ON A POLE

SPECIFICATION 17  
(75-070)

## NOTES

1. SERVICE CONDUCTORS SHALL BE CONTINUOUS FROM TRANSFORMER BUSHING TO SERVICE CONDUIT.
2. THIS INSTALLATION REQUIRES A 12 METER (MIN) POLE.
3. COMPRESSION CONNECTORS SHALL BE USED ON ALL OVERHEAD CURRENT CARRYING CONNECTIONS.

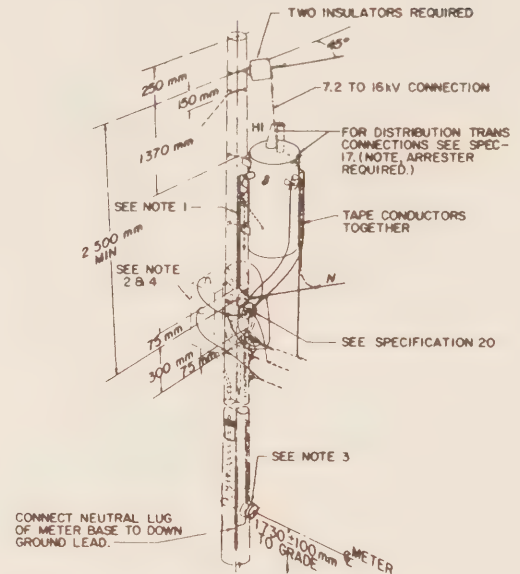
## TRANSFORMER INSTALLATION

SPECIFICATION 18  
(75-070)

## NOTES

1. STANDBY GENERATOR SHALL NOT BE CONNECTED TO WIRING SYSTEM EXCEPT THROUGH A DOUBLE-THROW SWITCH WHICH WILL PREVENT FEEDBACK ON THE SUPPLY AUTHORITY'S SYSTEM.
2. METER MOUNTS SHALL BE TYPE 'S' WITH AUTO BYPASS.
3. \* MINIMUM LENGTH OUTSIDE CONDUIT.
4. COMPRESSION CONNECTORS SHALL BE USED ON ALL OVERHEAD CURRENT CARRYING CONNECTIONS.
5. CONDUCTORS FOR METERING ARE COPPER NO.12 TYPE TW-40°F OR TEW AND INSTALLED IN 3/4" RIGID CONDUIT.

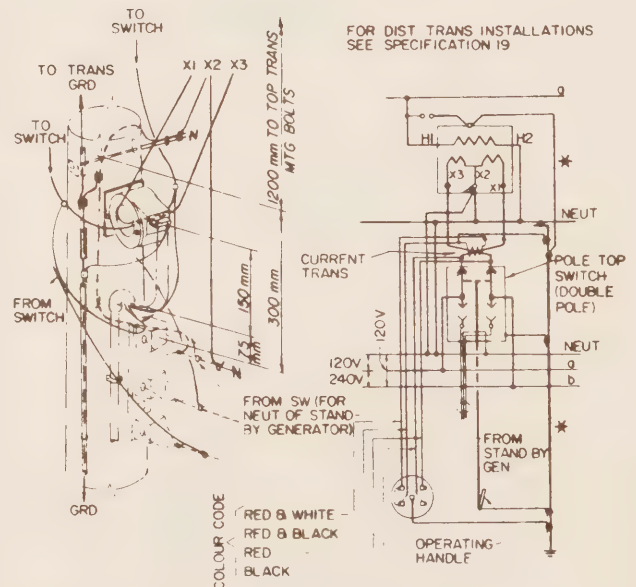
## CUSTOMER POLE FRAMING CENTRAL METERING

SPECIFICATION 19  
(75-070,-104)

## NOTES

1. CONTINUOUS FROM SYSTEM NEUTRAL TO GROUND ELECTRODE.
2. POLE TOP SWITCH MAY HAVE PROVISION FOR STANDBY GENERATOR.
3. "S" METER BASE MUST HAVE AUTOMATIC SHORTING DEVICE.
4. GROUND POLE TOP SWITCH TO GROUND BUS WITH NO.4 AWG COPPER.
5. COMPRESSION CONNECTORS SHALL BE USED ON ALL OVERHEAD CURRENT CARRYING CONNECTIONS.

C.M.S. TRANSFORMER INSTALLATION WITH  
POLE TOP SWITCH CUSTOMERS POLE  
SINGLE PHASE 2.4 TO 16kV

SPECIFICATION 20  
(75-070)

## CURRENT TRANS

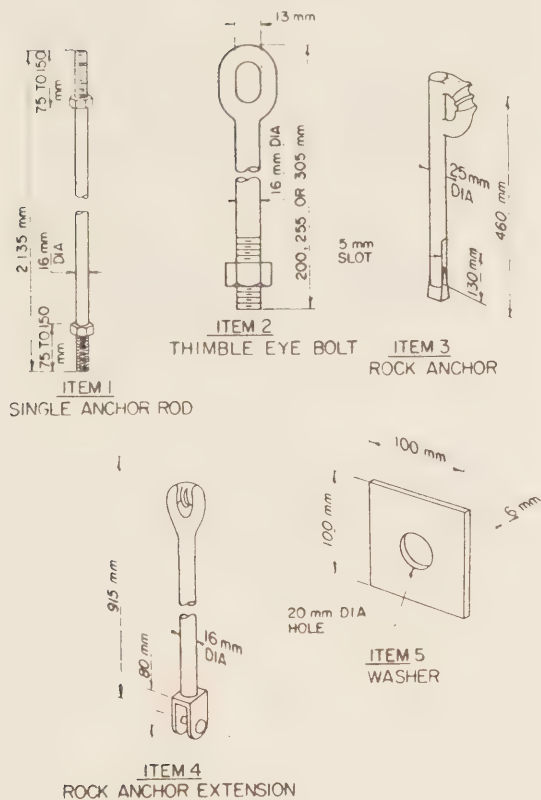
## WIRING DIAGRAM

## LEGEND

- = LV POLARITY MARKS (•) OR X1
- = HV POLARITY MARKS (•) OR H1
- \* CONTINUOUS LEADS

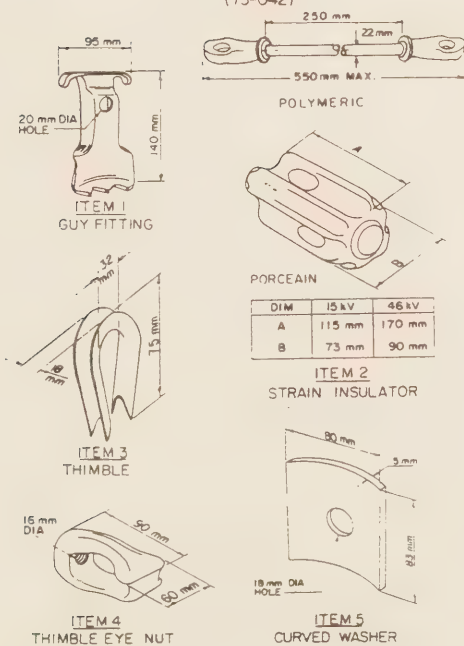
CT. LOCATION & WIRING DIAGRAM CENTRAL METERING  
TRANSFORMER INSTALLATION CUSTOMER'S POLE

### SPECIFICATION 21 (SPEC 2,3,4,5 & 6)



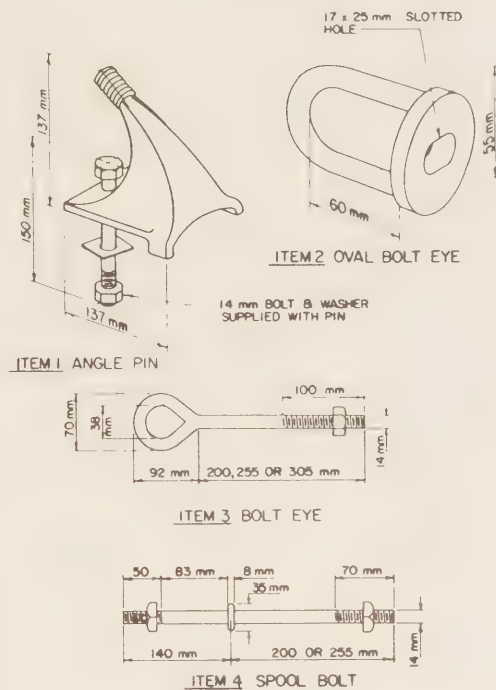
MATERIAL

### SPECIFICATION 22 (SPEC 5 & 6) (75-042)



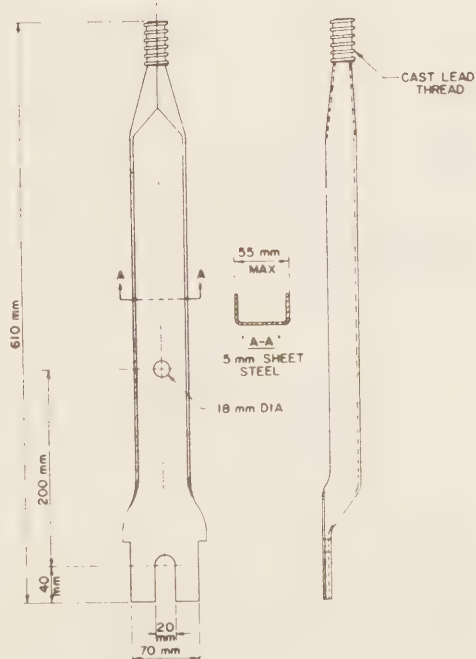
MATERIAL

### SPECIFICATION 23 (75-022)

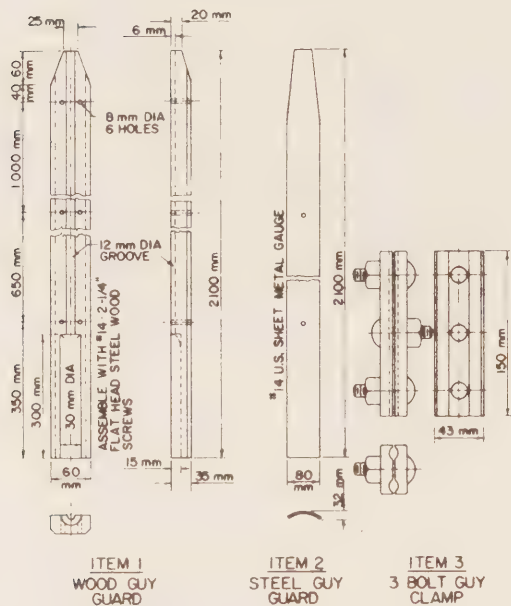


MATERIAL

### SPECIFICATION 24 (75-056)



SPECIFICATION 25  
(SPECIFICATIONS 5 & 6)

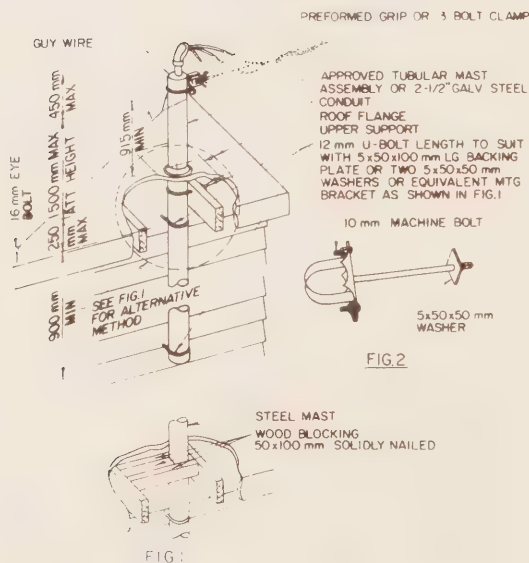


**NOTE**

AS AN ALTERNATIVE, PREFORMED GUY GRIPS AND/OR PLASTIC GUY GUARDS MAY BE USED.

## GUY GUARDS

SPECIFICATION 26  
(75 066,-042)

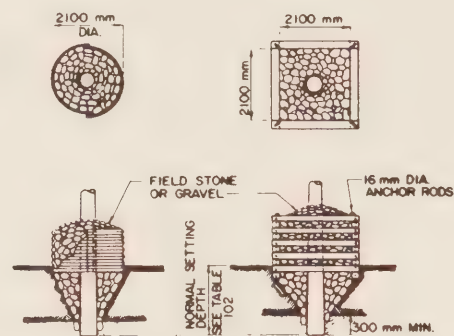


## NOTES

1. ALL HARDWARE TO BE HOT DIPPED GALVANIZED STEEL.
2. WHERE THE MAXIMUM ATTACHMENT HEIGHT EXCEEDS 1500 mm, THEN GUYING MUST BE EMPLOYED. CONNECT TO EYE BOLT FASTENED TO BUILDING STRUCTURAL MEMBER
3. COMPRESSION CONNECTORS SHALL BE USED WHERE REQUIRED

## SERVICE MAST INSTALLATION

SPECIFICATION 27  
(75-020)

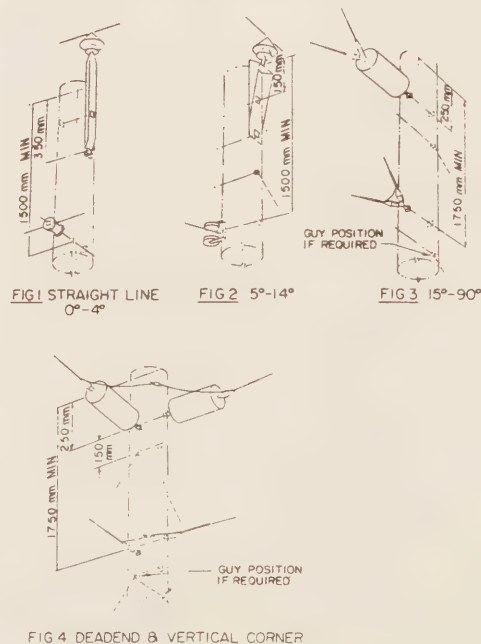


## NOTES

1. CORRUGATED GALVANIZED STEEL CRIBBING SHALL BE 1/4" THICK, OR THICKER.
2. TIMBERS SHALL BE WESTERN CEDAR OR PRESSURE TREATED PINE
3. FOR CORNER FASTENING USE 16 mm DIA. GALVANIZED ANCHOR RODS.
4. DEPTH OF POLE FOR VARIOUS POLE LENGTHS SHALL BE AS STATED IN TABLE 102.
5. HEIGHT OF CRIB WILL VARY WITH POLE HEIGHT. MINIMUM HEIGHT OF CURB SHALL BE 600 mm.

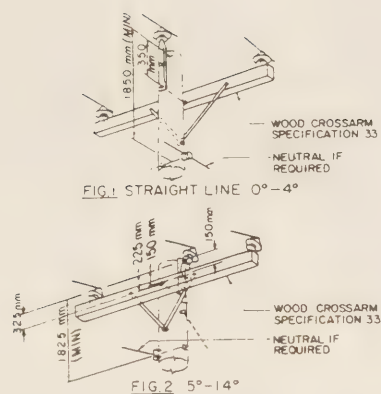
### CRIBBING OF POLES

SPECIFICATION 28  
(75-022)



## FIG 4 DEADEND &amp; VERTICAL CORNER

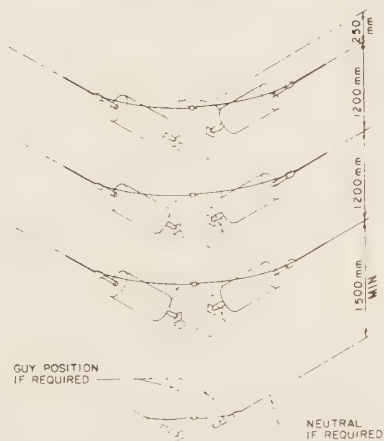
PRIMARY 10,16KV MAX VERTICAL

SPECIFICATION 29  
(75-022)

## NOTE

ON 44 kV THE MAXIMUM SPAN SHALL  
BE 75 METRES.

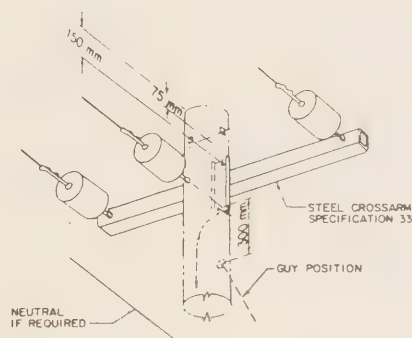
PRIMARY 3 Ø 50kV MAX CROSSARM

SPECIFICATION 30  
(75-022)

## NOTE

MAXIMUM SPAN FOR VERTICAL DEADEND AND  
VERTICAL CORNER SHALL BE 75 METRES.

PRIMARY 3 Ø 50kV MAXIMUM VERTICAL  
DEADEND AND VERTICAL CORNER

SPECIFICATION 31  
(75-022)

## NOTES

1. DEADEND 1360 kg MAXIMUM TENSION.
2. MAXIMUM SPAN FOR CROSSARM DEADEND  
SHALL BE 75 METRES

PRIMARY 3 Ø 50kV MAXIMUM  
CROSSARM DEADEND

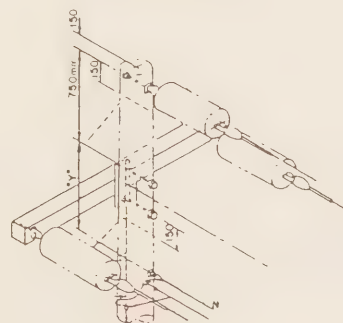
SPECIFICATION 31A  
(75-022)

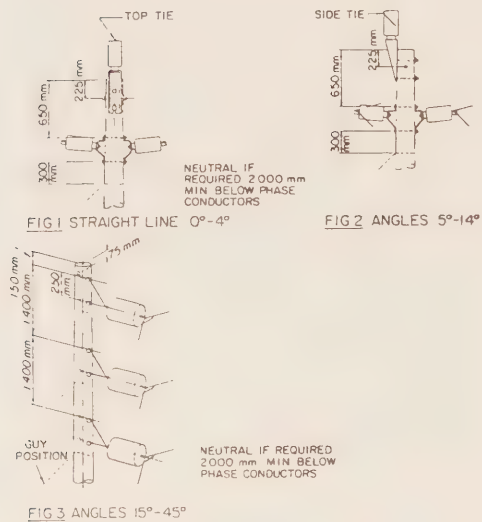
FIG 1

SYSTEM VOLTAGE	"Y" MIN mm
24/41.6 kV TO 8/13.8 kV	700
14.4/24.9 kV TO 16/27.6 kV	1150
44 kV	N/A

## NOTES

- a) MAXIMUM CONDUCTOR TENSION  
1362 kgf (13.4 kN)
- b) MAXIMUM SPAN 75 m
- c) NOT TO BE USED WHERE EQUIPMENT  
EG. TRANSFORMER IS REQUIRED ON  
SAME POLE

PRIMARY 3 Ø, 2.4/4.16 TO 16/27.6 kV  
DEADEND  
ARMLESS

SPECIFICATION 32  
(75-022)SPECIFICATION 33  
(75-048)

ITEM-1 HOLLOW STEEL CROSSARM WITH WELDED STEEL END PLATES													MAX LOAD PER COND
WEIGHT	K	A	B	C	D	E	F	G	H	J	L	M	
67.13 kg	2896	95	457	610	533	127	76	102	102	254	11	102	588 kg/force

## NOTES

- 1) ALL DIMENSIONS ARE IN MILLIMETERS.
- 2) ALL HOLES UNLESS SPECIFIED IN CHART ABOVE ARE 22mm DIA.
- 3) ALL HOLES ARE LOCATED IN THE CENTRE OF FACE IN WHICH THEY ARE DRILLED EXCEPTING 11mm DIA GROUND CONNECTOR HOLE.

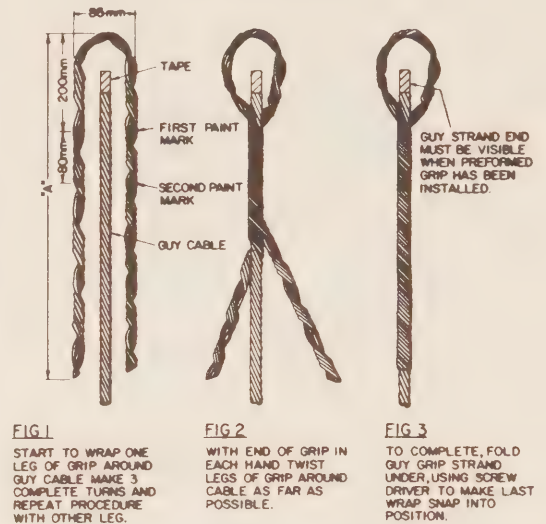


K	A	B	C	D	E	F	G	H	J
3000	10	95	121	457	915	128	18	22	559

## NOTE

ALL HOLES TO BE IN CENTRE OF FACE  
IN WHICH THEY ARE BORED.

STEEL AND WOOD CROSSARMS

SPECIFICATION 34  
(75-042)

## NOTES

1. FOR 8mm GUY "A" = 760mm.
2. FOR 11mm GUY "A" = 890mm.
3. WHEN USING PREFORMED GUY GRIPS WITH GUY FITTINGS, START WRAP AT FIRST PAINT MARK, WHEN USED WITH STRAIN INSULATORS - START AT SECOND PAINT MARK.
4. PREFORMED GUY GRIPS MAY BE REMOVED AND RE-INSTALLED ONCE.

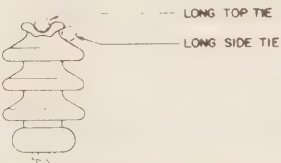



METHOD OF INSTALLING  
PREFORMED GUY GRIPS

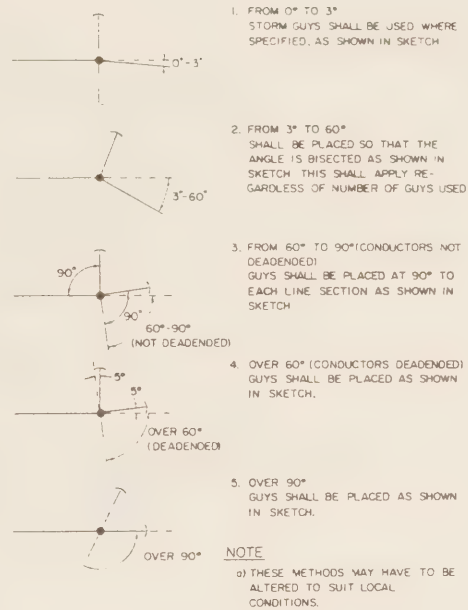
SPECIFICATION 35  
(TABLE 108)

LINE VOLTAGE kV	
PRIMARY (FOUR WIRE SYSTEMS)	LONG TOP TIE SPECIFICATION 9
2.4/4.16 TO 4.8/8.32	LONG SIDE TIE SPECIFICATION 10
7.2/12.47	
8/13.8	PRIMARY
14.4/24.9	LONG TOP TIE SPECIFICATION 9
16/27.6	LONG SIDE TIE SPECIFICATION 10
	PRIMARY
SUBTRANSMISSION (THREE WIRE SYSTEMS)	LONG TOP TIE SPECIFICATION 9
27.6 (INC 13.8)	LONG SIDE TIE SPECIFICATION 10
44	SUBTRANSMISSION

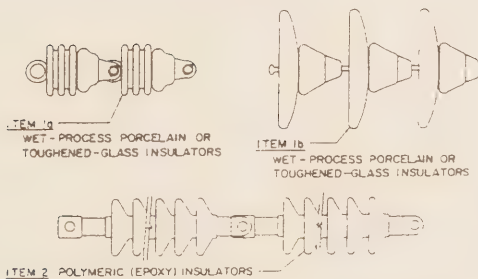
TYPICAL PIN TYPE INSULATOR ASSEMBLIES

SPECIFICATION 36  
(TABLE 108)

LINE VOLTAGE 'KV'	TIE TOP-VERTICAL & HORIZONTAL
<b>PRIMARY</b> (FOUR WIRE SYSTEMS) 2.4/4.16 TO 4.8/8 32 7.2/12.47 8/13.8 14.4/24.9 16/27.6  <b>SUBTRANSMISSION</b> (THREE WIRE SYSTEMS) 27.6 (INCL 13.8) 44	 ITEM-1 VERTICAL TYPE INSULATOR FOR VERT MTG POSITION TO BE USED WITH TOP OR SIDE TIE. HORIZ MTG POSITION TO BE USED WITH SIDE TIE. SUITABLE FOR TANGENT AND ANGLES 0°-15°. <b>CLAMP TOP-VERTICAL OR HORIZONTAL</b>  ITEM-2a VERTICAL TYPE CLAMP TOP INSULATOR IN VERT MTG POSITION FOR TANGENT AND ANGLES 0°-15°.  ITEM-2b VERTICAL TYPE CLAMP TOP INSULATOR IN HORIZ MTG POSITION FOR ANGLES 16°-45°. <b>CLAMP TOP-HORIZONTAL</b>  ITEM-3 HORIZONTAL TYPE CLAMP TOP INSULATOR IN HORIZ MTG POSITION FOR TANGENT AND ANGLES 0°-15°.

TYPICAL POST TYPE  
INSULATOR ASS'YSSPECIFICATION 38  
(75-038)

ARRANGEMENT OF GUYS 0-50KV

SPECIFICATION 37  
(TABLE 108)APPLICATION OF PORCELAIN OR GLASS SUSPENSION-TYPE INSULATORS  
-NUMBER REQUIRED-

SYSTEM	ANGLES, SWITCHES AND DEADENDS		IN-SPAN LIVE-LINE OPENERS	FLOATING DEADENDS
	WOOD	STEEL		
PRIMARY (4 WIRE) UP TO 8/13.8 kV	ITEM 1a 2 REQ'D	ITEM 1a 3 REQ'D	ITEM 1a 4 REQ'D	ITEM 1a 4 REQ'D
14.4/24.9 kV AND 16/27.6 kV	ITEM 1a OR 1b 3 REQ'D	ITEM 1b 4 REQ'D	ITEM 1b 4 REQ'D	ITEM 1a 6 REQ'D
SUBTRANSMISSION (3 WIRE) 27.6 AND 44 kV	ITEM 1b 4 REQ'D	ITEM 1b 4 REQ'D	ITEM 1b 4 REQ'D	N/A

APPLICATION OF POLYMERIC (EPOXY) SUSPENSION-TYPE INSULATORS  
-NUMBER AND SIZE OF INSULATORS REQUIRED PER PHASE-

APPLICATION	VOLTAGE LEVEL (PHASE-PHASE)		
	UP TO 15kV	25 o 27.6kV-4 WIRE	27.6 o 44kV-3 WIRE
DEAD-ENDS, ANGLES, SWITCHES	ITEM 2 1 REQ'D (15kV)	ITEM 2 1 REQ'D (25kV)	ITEM 2 1 REQ'D (35kV)
IN-SPAN LIVE LINE OPENERS	ITEM 2 1 REQ'D (25 kV)	ITEM 2 1 REQ'D (35kV)	ITEM 2 2 REQ'D (25kV)
FLOATING DEAD-ENDS	ITEM 2 1 REQ'D (25 kV)	ITEM 2 1 REQ'D (35kV)	ITEM 2 2 REQ'D (25kV)

TYPICAL SUSPENSION-TYPE  
INSULATOR STRAIN ASSEMBLIES

SECTION 85—REVOCATION

85-000 Ontario Regulation 183/84 is revoked.

COMMENCEMENT

85-002(1) This Regulation comes into force on the 4th day of March, 1991.

(2) Notwithstanding the revocation of Ontario Regulation 183/84, an electrical installation or work on an electrical installation or part thereof may be continued to be carried out under that regulation on or after the 4th day of March, 1991, if,

- (a) an application for inspection is made before the 15th day of April, 1991; and
- (b) notice is provided to the inspection department before the 15th day of April, 1991, that the applicant is carrying out the electrical installation or work under that regulation.

ONTARIO HYDRO

R. C. FRANKLIN,  
*Chairperson*

L. E. LEONOFF,  
*Secretary*

Dated at Toronto, this 15th day of October, 1990.

## INDEX 06

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## Information

THE ONTARIO GAZETTE is published each Saturday and **advertisements must be received no later than Thursday 4 p.m., 9 days before publication of the issue in which they should appear.**

Advertisements including the names of any signing officers must be typed or written legibly. Advertising rates are: \$18.60 per 25 mm for a single column and \$39.00 per 25 mm for a double column + 7% G.S.T.

Subscription rate is \$104.00 for 52 weekly issues and the single copy price \$2.25 + 7% G.S.T. payable in advance. All rates are subject to increases without notice.

**Cheques or money orders** should be made payable to THE TREASURER OF ONTARIO and all correspondence, including address changes, should be mailed to:

THE ONTARIO GAZETTE  
5th Floor, 880 Bay Street, Toronto, Ontario M7A 1N8  
Telephone 326-5310  
Toll-Free 1-800-668-9938

## Information

LA GAZETTE DE L'ONTARIO paraît chaque samedi, **et les annonces à y insérer doivent parvenir à ses bureaux le jeudi à 16 h au plus tard, soit au moins neuf jours avant la parution du numéro dans lequel elles figureront.**

Les annonces, ainsi que le nom des signataires autorisés, doivent être dactylographiées ou écrites lisiblement. Les tarifs sont de 18,60 \$ par 25 mm, pour une colonne, et de 39,00 \$ par 25 mm, pour deux colonnes + 7% G.S.T.

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# The Ontario Gazette

## La Gazette de l'Ontario

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### INDEX TO THE ONTARIO GAZETTE

This Issue contains the Index to the contents of Vol. 123-27 to Vol. 123-52 covering the period from July 7 to December 29, 1990. A listing of the Regulations published during this period is not included in the Index.

(4600) 7

### INDEX DE LA GAZETTE DE L'ONTARIO

Ce numéro contient l'index des vol. 123-27 à 123-52, allant du 7 juillet au 29 décembre 1990. La liste des règlements publiés pendant cette période n'est pas comprise dans cet index.

### Proclamation

(Great Seal of Ontario)

LINCOLN M. ALEXANDER

PROVINCE OF ONTARIO

ELIZABETH THE SECOND, by the Grace of God of the United Kingdom, Canada and Her other Realms and Territories, Queen, Head of the Commonwealth, Defender of the Faith.

TO ALL TO WHOM THESE PRESENTS SHALL COME.

GREETING:

### PROCLAMATION

In recognition of the first anniversary of Nelson Mandela's release from prison;

And acknowledging Nelson Mandela as the embodiment of the world's hope for the achievement of democracy, peace and justice in South Africa;

NOW THEREFORE KNOW YE that, having taken the premises into Our Royal consideration, We, by and with the advice of Our Executive Council of Ontario and in the exercise of the power in US vested in this behalf by the said Act or otherwise howsoever, Do, by this Our Royal PROCLAMATION hereby Name Monday, the eleventh day of February, 1991 as Nelson Mandela Day in Ontario.

IN TESTIMONY WHEREOF We have caused these Our Letters to be made patent and the Great Seal of Our Province of Ontario to be hereunto affixed.

WITNESS:

THE HONOURABLE LINCOLN M. ALEXANDER, A Member of Our Privy Council for Canada, One of Our Counsel Learned in the Law, Bachelor of Arts, Doctor of Laws, LIEUTENANT GOVERNOR OF OUR PROVINCE OF ONTARIO.

at Our City of Toronto in Our said Province, this twenty-first day of January, in the year of Our Lord one thousand nine hundred and ninety-one and in the thirty-ninth year of Our Reign.

BY COMMAND

Frances Lankin.  
MINISTER OF GOVERNMENT SERVICES.

(Great Seal of Ontario)

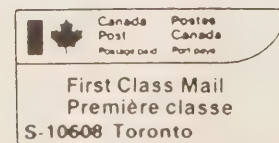
LINCOLN M. ALEXANDER

PROVINCE DE L'ONTARIO

ÉLIZABETH DEUX, par la grâce de Dieu, Reine du Royaume-Uni, du Canada et de ses autres royaumes et territoires, Chef du Commonwealth, Défenseur de la Foi.

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Publié par le ministère des Services gouvernementaux

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À TOUS CEUX QUI RECEVRONT LES PRÉSENTES,

SALUT :

# PROCLAMATION

À l'occasion du premier anniversaire de la libération de Nelson Mandela;

et en reconnaissance du fait que Nelson Mandela incarne pour le monde entier l'espoir d'une société démocratique, pacifique et juste en Afrique du Sud;

QU'IL SOIT PAR CONSÉQUENT ENTENDU QUE, les prémisses ayant fait l'objet de Notre considération royale, suivant l'avis de Notre Conseil des ministres de l'Ontario et dans l'exercice du pouvoir à NOUS conféré en la matière par ladite loi ou toute autre autorité, par la présente PROCLAMATION ROYALE, que le lundi onzième jour de février 1991 soit proclamé Jour de Nelson Mandela en Ontario.

EN FOI DE QUOI nous avons fait des présentes Nos Lettres patentes et y avons apposé le Grand Sceau de Notre Province de l'Ontario.

TÉMOIN :

L'HONORABLE LINCOLN M. ALEXANDER, membre de Notre Conseil privé pour le Canada, l'un de Nos conseillers juridiques, Bachelier ès arts, Docteur en droit, LIEUTENANT-GOUVERNEUR DE NOTRE PROVINCE DE L'ONTARIO

en Notre cité de Toronto, dans ladite Province, ce vingt et unième jour de janvier, de l'année mil neuf cent quatre-vingt-onze de notre ère et dans la trente-neuvième année de Notre règne.

PAR ORDRE

Frances Lankin,  
MINISTRE DES SERVICES  
GOUVERNEMENTAUX.

(4602) 7

## MOTOR VEHICLE TRANSPORT ACT, 1987 LOI DE 1987 SUR LES TRANSPORTS ROUTIERS

### MOTOR VEHICLE TRANSPORT ACT, 1987, PART II TRUCK APPLICATIONS:

The following are applications for extra-provincial truck transport operating licences under Part II of the Motor Vehicle Transport Act, 1987, S.C. 1987, Chapter 35. These Applicants have been found to meet the fitness requirements pursuant to Section 8 (2) of that Act and the provincial transport board for Ontario proposes to issue the licences if no objection is served on the Applicant and filed with the Registrar of Motor Vehicles with the prescribed filing fee, within twenty-nine days of this publication.

### EXTRA-PROVINCIAL APPLICATIONS:

**NOTE:** Where the application is for a licence other than a corridor operating authority, an interested person who serves and files an objection must also provide the Ontario Highway Transport Board with written evidence, within thirty-nine days of this publication that satisfies that Board that, in the absence of evidence to the contrary, the operation of the undertaking in respect of which the licence is sought would likely be detrimental to the public interest.

\* Indicates a person who has applied for licences under both Part II and Part III of the Motor Vehicle Transport Act, 1987.

The following applicants have applied for Authority to offer a transportation service as detailed below for extra-provincial movement, between (00000) POINTS IN ONTARIO and the:

### ONTARIO/QUEBEC, ONTARIO/MANITOBA, ONTARIO/USA BORDER CROSSINGS:

**\*AIR KING TRUCKING INC.** 104703130  
19122-D FULLER HEIGHTS RD  
TRIANGLE VA, USA  
22171  
SINGLE SOURCE. Original

**\*ALL-PURPOSE FLOAT SERVICES INC.** 030933763  
10 POLENTO CRES  
BOLTON, ONTARIO  
L7E 5S3  
GENERAL FREIGHT. Amend

**\*BAILEY, LINDSAY, J** 007849514  
L14 C3 PHELPS  
REDBRIDGE R1, ONTARIO  
P0H 2A0  
OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT; TANK. Original

**\*BECERRA, CARLOS, A** 061973757  
1423 LEFKAS CT  
MISSISSAUGA, ONTARIO  
L5J 4L8  
SINGLE SOURCE; GENERAL FREIGHT. Original

**\*BENJAMIN, MERL, R** 097103203  
RD 2 BX 766  
PORT CRANE NY, USA  
13833  
SINGLE SOURCE. Original

**\*BOUDREAU, JOSEPH** 035068203  
4 LEWIN CR  
AJAX, ONTARIO  
L1S 3A3  
OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT. Original

**\*BRYARD, GLADIS** 102167610  
100 MONTEE DORION  
ST-EUSTACHE QC  
J7R 4K3  
SINGLE SOURCE. Original

**\*CAMERON, W, CHARLES** 104698207  
170 DENNY DR  
NEW CASTLE PA, USA  
16101  
SINGLE SOURCE. Original

**\*CENTRAL CANADA EQUIPMENT  
(THUNDER BAY) LIMITED** 000533285  
1055 COMMERCE ST  
THUNDER BAY, ONTARIO  
P7E 6E8  
GENERAL FREIGHT; TANK. Original

**CHAMPLAIN ENERGIES LTD** 089884390  
1460 CHEMONG RD  
PETERBOROUGH R1, ONTARIO  
K9J 6X2  
GENERAL FREIGHT; TANK. Amend

**\*COUPERTHWAIT, KAREN, E** 095761702  
L22 C8 Original  
OAKWOOD R2, ONTARIO  
K0M 2M0  
GENERAL FREIGHT.

**DALE HOFFMAN & SONS ELEVATOR INC.** 104734536  
21521 EAST MICHIGAN AV  
MARSHALL MICHIGAN, USA  
49068  
GENERAL FREIGHT. Original

<b>*DHILLON, MANJINDER, SINGH</b> 50 BUCKLAND WAY BRAMPTON, ONTARIO L6V 3P4 SINGLE SOURCE.	<b>097618259</b> Original	<b>*JETT LINEHAUL INC</b> 4 DREW AVE CAMBRIDGE, ONTARIO N1S 3R3 GENERAL FREIGHT.	<b>101972822</b> Original
<b>*ED PETERS TRANSPORTATION LIMITED</b> 364 BAY DR PO BOX 244 MILLBROOK, ONTARIO L0A 1G0 GENERAL FREIGHT.	<b>104659476</b> Original	<b>K &amp; P TRUCKING CO.</b> 3862 ST RT 103 S BOX 179 WILLARD OHIO, USA 44890 GENERAL FREIGHT; TANK.	<b>104746234</b> Original
<b>*FALCON TRUCKING INC.</b> BOX 344 ROUTE 8 SLIPPERY ROCK PA, USA 16057 SINGLE SOURCE.	<b>104700300</b> Original	<b>KEN STAUB JR TRUCKING INC</b> 4786 EAST RIVER RD GRAND ISLAND NEW YORK, USA 14072 GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee only maintains a place or places of business in locations other than the Province of Ontario.	<b>073315788</b> Amend
<b>*FORREST, ARTHUR, E</b> BOX 33A ROUTE 1 SLIGO PA, USA 16255 SINGLE SOURCE.	<b>104699751</b> Original	<b>*LAMB, FRANK, CHARLES</b> L14 C3 BRUNEL TP BX2361 HUNTSVILLE, ONTARIO P0A 1K0 GENERAL FREIGHT.	<b>021174652</b> Original
<b>*FULTON, DAVID, A</b> 59 TORRY HILL RD ELLISBURG NY, USA 13636 SINGLE SOURCE.	<b>104698601</b> Original	<b>LAWSON, ROBERT, S</b> 304 SPICEWOOD CT MECHANICSVILLE VA, USA 23111 OWNER DRIVER, exempt from Public Interest Test.	<b>104299386</b> Original
<b>*GARY D ROBINSON CONTRACTING LTD</b> L20 C10 YARM ST THOMAS R8, ONTARIO N5P 3T3 GENERAL FREIGHT; TANK.	<b>059107749</b> Amend	<b>*LES CONSTRUCTIONS ANDRE GENDREAU INC.</b> 1299 ROUTE 137 LA PRESENTATION, QC J0H 1B0 SINGLE SOURCE.	<b>102165118</b> Original
<b>*GREWAL, RABINDER, SINGH</b> 81 ORPHIR RD HAMILTON, ONTARIO L8K 3Z5 SINGLE SOURCE.	<b>086442348</b> Original	<b>LES DEMENAGEMENTS VALOIS INC</b> 910 MCDOUGALL TROIS-RIVIERES QUEBEC G9A 2T6 GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee only maintains a place or places of business in locations other than the Province of Ontario.	<b>080797068</b> Original
<b>*GUINDON, AURELE, F</b> PT LI C1 CHAR TWP SUMMERSTOWN R1, ONTARIO K0C 2E0 SINGLE SOURCE; GENERAL FREIGHT; TANK.	<b>001347712</b> Original	<b>*LES TRANSPORTS JUMELES INC</b> 125 CH LEBEL C P 871 RIVIERE DU LOUP QUE G5R 3Z5 SINGLE SOURCE; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee only maintains a place or places of business in locations other than the Province of Ontario.	<b>094718020</b> Original
<b>*HAIGHT, BRUCE, HAROLD</b> 18 ALBERT ST NORWICH, ONTARIO N0J 1P0 GENERAL FREIGHT; TANK.	<b>028390775</b> Original	<b>*LOCATION S L C INC</b> 519 PRINCIPALE L AVENIR QC J0C 1B0 OWNER DRIVER, exempt from Public Interest Test.	<b>091583244</b> Original
<b>*HURD, ALAN, C/HURD, ROBERT, J</b> L14 C3 HWY-17 NIPIGON TP NIPIGON, ONTARIO P0T 2J0 OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT.	<b>072647933</b> Amend	<b>*LOGISTICS RESOURCES INC.</b> 141 PERKINS ROW TOPSFIELD MASSACHUSETTS, USA 01983 GENERAL FREIGHT; TANK.	<b>104660764</b> Original
<b>*HUTCHISON, EARL, JAMES</b> PT L15 C2 MILTON R3, ONTARIO L9T 2X7 SINGLE SOURCE.	<b>009304374</b> Original	<b>*LOOPE, JOHN, C</b> BOX 352 ROUTE 11 CANTON NY, USA 13617 SINGLE SOURCE.	<b>104699646</b> Original
<b>*INTER-CITY TRUCK LINES (CANADA) INC</b> 1370 DUNDAS ST E SUITE 205 MISSISSAUGA, ONTARIO L4Y 4G4 GENERAL FREIGHT.	<b>001600771</b> Amend	<b>*LUST, WARREN, L</b> 409 E HAMILTON AVE SHERRILL NY, USA 13461 SINGLE SOURCE.	<b>104699425</b> Original
<b>JENNINGS, EARL, F</b> 8784 WEAVER ROAD BREWERTON NY, USA 13029 SINGLE SOURCE.	<b>104310936</b> Original		

<b>*M &amp; M FURNEL'S CORP LTD</b> 1961 MERIVALE RD NEPEAN, ONTARIO K2G 1G1 GENERAL FREIGHT; TANK.	<b>080760192</b> Original	<b>*S.M.O. SYSTEMS INC.</b> L16 C4 BOX 237 GORMLEY, ONTARIO L0H 1G0 GENERAL FREIGHT.	<b>102464886</b> Original
<b>*MALINOWSKI, KRZYSZTOF</b> 695 SURREY LANE AP-402 BURLINGTON, ONTARIO L7T 3Z4 GENERAL FREIGHT.	<b>090842513</b> Original	<b>*SCHULTZ, CHARLES, H</b> MOUNT PLEASANT RD BOX 91A DONGOLA ILL US, USA 62926 GENERAL FREIGHT.	<b>104694872</b> Original
<b>*MALONE, TIMOTHY, P</b> OLD ROUTE 3 BOX23 HANNIBAL NY, USA 13074 SINGLE SOURCE.	<b>104703406</b> Original	<b>*SCOTT, MICHAEL, F</b> L10 C12 COLBORNE GODERICH R6, ONTARIO N7A 3Y3 GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (52000) HURON CO.	<b>071952653</b> Original
<b>*MCMULLEN, R-GLEN</b> L2 C8 THUR TP. BX 159 FOXBORO, ONTARIO K0K 2B0 GENERAL FREIGHT.	<b>067221128</b> Original	<b>*SENAJO TRANSPORT INC</b> 1364 RANG 10 STE CHRISTINE QC J0H 1H0 SINGLE SOURCE.	<b>096983068</b> Original
<b>*MEADOWBURN EXPRESS LTD.</b> 2763 POOLEY AVE MERRITT BRITISH COLUMBIA V0K 2B0 GENERAL FREIGHT.	<b>104754977</b> Original	<b>*SHEAR, JAMES, C</b> BOX 580A ROUTE 1 ADAMS NY, USA 13605 SINGLE SOURCE.	<b>104699867</b> Original
<b>*MICHAEL O'KEEFE LTD</b> L17 C9 SANDWICH S TECUMSEH R2, ONTARIO N8N 2M1 GENERAL FREIGHT; TANK.	<b>033213673</b> Original	<b>*SMITHLER, JAMES, L</b> 2920 SMITHLER RD WEEDSPORT NY, USA 13166 SINGLE SOURCE.	<b>104698404</b> Original
<b>*MOFFATT, DENNIS, G</b> 9 PRINCESS ST AP303 ORANGEVILLE, ONTARIO L9W 1W1 GENERAL FREIGHT.	<b>052564952</b> Original	<b>STAGECOACH CARTAGE AND DISTRIBUTION INC</b> 7158 MERCHANT EL PASO TEXAS USA, USA 79915 GENERAL FREIGHT.	<b>104692805</b> Original
<b>*OJIBWAY TRANSPORTATION INC.</b> 5353 MAPLEWOOD DR WINDSOR, ONTARIO N9C 3Y6 INTERMEDIARY; GENERAL FREIGHT.	<b>104700011</b> Original	<b>*STEVENSON, JOHN, R</b> L7 C8 LOBO TP ILDERTON RR1, ONTARIO N0M 2A0 TANK.	<b>022548130</b> Amend
<b>*ONTARIO WHOLESALE DISTRIBUTORS INC</b> 3764 JORAN RD. P O BOX 339 JORDAN STATION RR1, ONTARIO L0R 1S0 ENERAL FREIGHT.	<b>079900571</b> Original	<b>SUPERIOR LTD.</b> N3436 COUNTY HIGHWAY D PESHTIGO WISC, USA 54157 GENERAL FREIGHT.	<b>104694779</b> Original
<b>PAUL KING CONSTRUCTION LTD.</b> L2 C9 MACHAR SOUTH RIVER, ONTARIO P0A 1X0 GENERAL FREIGHT.	<b>090021968</b> Amend	<b>THOMAS, GRIFFIN, W</b> 1581 EMERSON RD GOODELLS MICHIGAN, USA 48060 OWNER DRIVER, exempt from Public Interest Test.	<b>104592738</b> Original
<b>*PHILIP ENTERPRISES INC</b> 52 IMPERIAL ST HAMILTON, ONTARIO L8L 4E2 GENERAL FREIGHT; TANK.	<b>014264551</b> Original	<b>*TRANSPORT DENIS LABONTE INC.</b> 875 RTE 249 SUD ST ELIE D ORFORD QUE J0B 2S0 SINGLE SOURCE; GENERAL FREIGHT.	<b>104298722</b> Original
<b>ROGERS CARTAGE CO</b> 4428 W MIDLOTHIAN TURNPIKE CRESTWOOD IL, USA 60445 TANK.	<b>079968565</b> Amend	<b>*TRANSPORT JEAN DE LACHEVROTIERE INC</b> 8255 CLOVIS LAVAL QUEBEC H7A 1A7 SINGLE SOURCE.	<b>089880956</b> Original
<b>*RYAN, BRENT, M</b> L91 C1 GLENELG TP MARKDALE R6, ONTARIO N0C 1H0 GENERAL FREIGHT.	<b>095622683</b> Original		

<b>*TRANSPORT JEAN-GUY BRETON INC</b> 1043 RUE LABBE CP23 ST FERDINAND QUE G0N 1N0 SINGLE SOURCE; GENERAL FREIGHT.	<b>085672875</b> Original	<b>*2552-6617 QUEBEC INC.</b> 121 4 IEME AVENUE SHERBROOKE QUEBEC J1G 2L2 SINGLE SOURCE; GENERAL FREIGHT.	<b>104740309</b> Original
<b>*TRANSPORT VAL-MART INC.</b> 1091 ST-PAUL FARNHAM QUEBEC J2N 2L2 SINGLE SOURCE; GENERAL FREIGHT.	<b>103846677</b> Original	<b>*2623-8253 QUEBEC INC.</b> 2640 DU MANOIR APT104 VAUDREUIL QC J5V 5M5 SINGLE SOURCE.	<b>104697966</b> Original
<b>*UNITED INDEPENDENT OPERATORS LIMITED</b> 1 WHITMORE RD UN16-17 WOODBIDGE, ONTARIO L4L 8G4 INTERMEDIARY; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (01000) METROPOLITAN TORONTO R, (27000) YORK R.	<b>098428204</b> Amend	<b>ONTARIO/QUEBEC, ONTARIO/MANITOBA BORDER CROSSINGS:</b>	
<b>*VAN-HAAREN, PERRY, A</b> 476 FAIRVIEW RD FORT ERIE, ONTARIO L2A 4S3 GENERAL FREIGHT.	<b>034371046</b> Original	<b>*CARNEVALE, JOE</b> 20 BERGAMOT AVE APT413 REXDALE, ONTARIO M9W 1V9 GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (01000) METROPOLITAN TORONTO R.	<b>068945350</b> Original
<b>*VARDY, SANDRA, L</b> 2274 NEW ST BURLINGTON, ONTARIO L7R 1J3 GENERAL FREIGHT.	<b>077405797</b> Original	<b>*DHILLON, MANJINDER, SINGH</b> 50 BUCKLAND WAY BRAMPTON, ONTARIO L6V 3P4 GENERAL FREIGHT.	<b>097618259</b> Original
<b>*WALTON, RICHARD, J</b> 340 SOUTHARD RD APT2 CATO NY, USA 13033 SINGLE SOURCE.	<b>104704102</b> Original	<b>THOMAS M. MORLEY INC.</b> 44930 MORLEY DRIVE MT CLEMENS MICHIGAN, USA 48043 GENERAL FREIGHT; TANK.	<b>080282595</b> Amend
<b>WAYNE HUNT INC</b> 658 FORDSON DETROIT MICHIGAN, USA 48217 SINGLE SOURCE; GENERAL FREIGHT.	<b>090115868</b> Original	<b>ONTARIO/QUEBEC, ONTARIO/USA BORDER CROSSINGS:</b>	
<b>*WHITE FOX TRUCKING INC</b> 107 ELPIS RD CLEVELAND NY, USA 13042 SINGLE SOURCE.	<b>104703928</b> Original	<b>*GREWAL, RABINDER, SINGH</b> 81 ORPHIR RD HAMILTON, ONTARIO L8K 3Z5 GENERAL FREIGHT.	<b>086442348</b> Original
<b>*WILLIAMS, GERALD, L</b> 6489 RD 1 RED CREEK NY, USA 13143 SINGLE SOURCE.	<b>104698730</b> Original	<b>ONTARIO/MANITOBA, ONTARIO/USA BORDER CROSSINGS:</b>	
<b>*175681 CANADA INC.</b> 94 GEORGES APT 2 MASSON QUEBEC J0X 2H0 SINGLE SOURCE; GENERAL FREIGHT.	<b>104740961</b> Original	<b>*WESTERN LOGISTICS INC.</b> 2690 NOOTKA ST VANCOUVER BC V5M 3M5 GENERAL FREIGHT.	<b>101520910</b> Original
<b>*2540-4237 QUEBEC INC</b> 111 RUE DUGAL MASSON QUEBEC J0X 2H0 SINGLE SOURCE.	<b>090730552</b> Original	<b>ONTARIO/QUEBEC BORDER CROSSINGS:</b>	
<b>*2543-0562 QUEBEC INC.</b> 212 GRAVEL ST-EUSTACHE, QC J7P 3Z2 SINGLE SOURCE.	<b>102164748</b> Original	<b>*SECUR INC</b> 59 AVE BEGIN LEVIS QUEBEC G6V 4C3 GENERAL FREIGHT.	<b>079772612</b> Amend
		<b>TRANSPORT JEAN YVES COTE INC.</b> 790 BOMBARDIER ST MASCOCHE QUEBEC J7K 1X9 BULK.	<b>104644426</b> Original
		<b>*TRANSPORT LIVBEC INC.</b> 3585 VINCENT ST ST-JEAN-BAPTISTE QUEBEC J0L 2B0 GENERAL FREIGHT.	<b>104311183</b> Original

## ONTARIO/USA BORDER CROSSINGS:

**A & D HITCHCOCK TRUCKING INC** 050208901  
2992 GRAMER RD BOX770 Amend  
WEBBERVILLE MI, USA  
48892  
GENERAL FREIGHT; TANK.

**A. N. WEBBER INC.** 088344130  
ONE ISSERT DR Original  
KANKAKEE ILLINOIS, USA  
60901  
GENERAL FREIGHT.

**\*BRADSHAW OIL CORP** 062118437  
L7 C9 TOWNS Amend  
WATERFORD R3, ONTARIO  
N0E 1Y0  
TANK.

**JOE UNDERWOOD TRUCKING INC.** 104055214  
1515 WARREN AVE, P.O. BOX 1515 Original  
AMERICUS GEORGIA, USA  
31709  
GENERAL FREIGHT.

**LITTON FURNITURE INCORPORATED** 104307446  
PONTOTOC IND PK 222 MAGEE DR Original  
PONTOTOC MS, USA  
38863  
GENERAL FREIGHT.

**MARIAN FREIGHT SYSTEMS INC.** 104731104  
999 OAKMONT PLAZA Original  
WESTMONT ILL USA, USA  
60559  
GENERAL FREIGHT.

**\*SHARPLES, PETER, A** 018518675  
711 BEACH BLVD Original  
HAMILTON, ONTARIO  
L8H 6Y5  
OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT.

**T. M. BROWN TRUCKING INC.** 104731398  
RTE 2 BX 531 Original  
HOUSTON MS, USA  
38851  
GENERAL FREIGHT.

**TILFORD TRUCKING INC** 103672488  
OLD HWY 70 S BX 34 Original  
READYVILLE TN, USA  
37149  
GENERAL FREIGHT.

**VENTURE EXPRESS INC.** 104684504  
905 VISCO DR Original  
NASHVILLE TENNESSEE USA, USA  
37224  
GENERAL FREIGHT.

## MOTOR VEHICLE TRANSPORT ACT, 1987 LOI DE 1987 SUR LES TRANSPORTS ROUTIERS

## INTRA-PROVINCIAL TRUCK APPLICATIONS:

The following are applications for operating licences under Part III of the Motor Vehicle Transport Act, 1987, S.C. 1987, Chapter 35. These applicants have been found to meet the fitness requirement in like manner to section 6 of the Truck Transportation Act, 1988, S.O. 1988, Chapter 64, and the provincial transport board for Ontario proposes to

issue the licences unless a person, within thirty days of this publication, serves on the Applicant and files with the Registrar of Motor Vehicles with the prescribed filing fee, a written request for a fitness hearing or a public interest test in like manner to Subsection 7 (4) of the Truck Transportation Act, 1988, S.O. 1988, Chapter 64.

**NOTE:** A person who requests a public interest hearing must, within thirty-nine days of this publication, serve on the Ontario Highway Transport Board a document that makes out a written case to the Board that the granting of the operating authority applied for would be likely to have a significant detrimental effect on the public interest using the criteria set out in subsection 10 (1) of the Truck Transportation Act, 1988, S.O. 1988, Chapter 64, and that the request is not frivolously made.

\* Indicates a person who has applied for licences under both Part II and Part III of the Motor Vehicle Transport Act, 1987.

The following applicants have applied for Authority to offer a transportation service as detailed below between (00000) POINTS IN ONTARIO:

**\*AIR KING TRUCKING INC.** 104703130  
19122-D FULLER HEIGHTS RD Original  
TRIANGLE VA, USA  
22171  
SINGLE SOURCE.

**\*ALL-PURPOSE FLOAT SERVICES INC.** 030933763  
10 POLENTO CRES Amend  
BOLTON, ONTARIO  
L7E 5S3  
GENERAL FREIGHT.

**\*BAILEY, LINDSAY, J** 007849514  
L14 C3 PHELPS Original  
LEDBRIDGE R1, ONTARIO  
POH 2A0  
OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT; TANK.

**\*BECERRA, CARLOS, A** 061973757  
1423 LEFKAS CT Original  
MISSISSAUGA, ONTARIO  
L5J 4L8  
SINGLE SOURCE; GENERAL FREIGHT.

**\*BENJAMIN, MERL, R** 097103203  
RD 2 BX 766 Original  
PORT CRANE NY, USA  
13833  
SINGLE SOURCE.

**\*BOUDREAU, JOSEPH** 035068203  
4 LEWIN CR Original  
AJAX, ONTARIO  
L1S 3A3  
OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT.

**\*BRADSHAW OIL CORP** 062118437  
L7 C9 TOWNS Amend  
WATERFORD R3, ONTARIO  
N0E 1Y0  
TANK.

**\*BRYARD, GLADIS** 102167610  
100 MONTEE DORION Original  
ST-EUSTACHE QC  
J7R 4K3  
SINGLE SOURCE.

**\*CAMERON, W, CHARLES** 104698207  
170 DENNY DR Original  
NEW CASTLE PA, USA  
16101  
SINGLE SOURCE.

<b>*CARNEVALE, JOE</b> 20 BERGAMOT AVE APT413 REXDALE, ONTARIO M9W 1V9 GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (01000) METROPOLITAN TORONTO R.	<b>068945350</b> Original	<b>*HURD, ALAN, C/HURD, ROBERT, J</b> L14 C3 HWY-17 NIPIGON TP NIPIGON, ONTARIO P0T 2J0 OWNER DRIVER, exempt from Public Interest Test.	<b>072647933</b> Amend
<b>*CENTRAL CANADA EQUIPMENT (THUNDER BAY) LIMITED</b> 1055 COMMERCE ST THUNDER BAY, ONTARIO P7E 6E8 GENERAL FREIGHT; TANK.	<b>000533295</b> Original	<b>*HUTCHISON, EARL, JAMES</b> PT L15 C2 MILTON R3, ONTARIO L9T 2X7 SINGLE SOURCE; GENERAL FREIGHT; TANK.	<b>009304374</b> Original
<b>*COUPERTHWAIT, KAREN, E</b> L22 C8 Original OAKWOOD R2, ONTARIO K0M 2M0 GENERAL FREIGHT.	<b>095761702</b>	<b>*INTER-CITY TRUCK LINES (CANADA) INC</b> 1370 DUNDAS ST E SUITE 205 MISSISSAUGA, ONTARIO L4Y 4G4 GENERAL FREIGHT.	<b>001600771</b> Amend
<b>*DHILLON, MANJINDER, SINGH</b> 50 BUCKLAND WAY BRAMPTON, ONTARIO L6V 3P4 SINGLE SOURCE; GENERAL FREIGHT.	<b>097618259</b> Original	<b>*JETT LINEHAUL INC</b> 4 DREW AVE CAMBRIDGE, ONTARIO N1S 3R3 GENERAL FREIGHT.	<b>101972822</b> Original
<b>*ED PETERS TRANSPORTATION LIMITED</b> 364 BAY DR PO BOX 244 MILLBROOK, ONTARIO L0A 1G0 GENERAL FREIGHT.	<b>104659476</b> Original	<b>*LAMB, FRANK, CHARLES</b> L14 C3 BRUNEL TP BX2361 HUNTSVILLE, ONTARIO P0A 1K0 GENERAL FREIGHT.	<b>021174652</b> Original
<b>*FALCON TRUCKING INC.</b> BOX 344 ROUTE 8 SLIPPERY ROCK PA, USA 16057 SINGLE SOURCE.	<b>104700300</b> Original	<b>*LES CONSTRUCTIONS ANDRE GENDREAU INC.</b> 1299 ROUTE 137 LA PRESENTATION, QC J0H 1B0 SINGLE SOURCE.	<b>102165118</b> Original
<b>*FORREST, ARTHUR, E</b> BOX 33A ROUTE 1 SLIGO PA, USA 16255 SINGLE SOURCE.	<b>104699751</b> Original	<b>*LES TRANSPORTS JUMELES INC</b> 125 CH LEBEL C P 871 RIVIERE DU LOUP QUE G5R 3Z5 SINGLE SOURCE; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee only maintains a place or places of business in locations other than the Province of Ontario.	<b>094718020</b> Original
<b>*FULTON, DAVID, A</b> 59 TORRY HILL RD ELLISBURG NY, USA 13636 SINGLE SOURCE.	<b>104698601</b> Original	<b>*LOCATION S L C INC</b> 519 PRINCIPALE L AVENIR QC J0C 1B0 OWNER DRIVER, exempt from Public Interest Test.	<b>091583244</b> Original
<b>*GARY D ROBINSON CONTRACTING LTD</b> L20 C10 YARM ST THOMAS R8, ONTARIO N5P 3T3 GENERAL FREIGHT.	<b>059107749</b> Amend	<b>*LOGISTICS RESOURCES INC.</b> 141 PERKINS ROW TOPSFIELD MASSACHUSETTS, USA 01983 GENERAL FREIGHT; TANK.	<b>104660764</b> Original
<b>*GREWAL, RABINDER, SINGH</b> 81 ORPHIR RD HAMILTON, ONTARIO L8K 3Z5 SINGLE SOURCE; GENERAL FREIGHT.	<b>086442348</b> Original	<b>*LOOPE, JOHN, C</b> BOX 352 ROUTE 11 CANTON NY, USA 13617 SINGLE SOURCE.	<b>104699646</b> Original
<b>*GUINDON, AURELE, F</b> PT LI C1 CHAR TWP SUMMERSTOWN R1, ONTARIO K0C 2E0 SINGLE SOURCE; GENERAL FREIGHT; TANK.	<b>001347712</b> Original	<b>*LUST, WARREN, L</b> 409 E HAMILTON AVE SHERRILL NY, USA 13461 SINGLE SOURCE.	<b>104699425</b> Original
<b>*HAIGHT, BRUCE, HAROLD</b> 18 ALBERT ST NORWICH, ONTARIO N0J 1P0 GENERAL FREIGHT; TANK.	<b>028390775</b> Original	<b>*M &amp; M FURNEL'S CORP LTD</b> 1961 MERIVALE RD NEPEAN, ONTARIO K2G 1G1 GENERAL FREIGHT; TANK.	<b>080760192</b> Original

<b>*MALINOWSKI, KRZYSZTOF</b> 695 SURREY LANE AP-402 BURLINGTON, ONTARIO L7T 3Z4 GENERAL FREIGHT.	<b>090842513</b> Original	GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (52000) HURON CO.	
<b>*MALONE, TIMOTHY, P</b> OLD ROUTE 3 BOX23 HANNIBAL NY, USA 13074 SINGLE SOURCE.	<b>104703406</b> Original	<b>*SECUR INC</b> 59 AVE BEGIN LEVIS QUEBEC G6V 4C3 GENERAL FREIGHT.	<b>079772612</b> Amend
<b>*MCMULLEN, R-GLEN</b> L2 C8 THUR TP. BX 159 FOXBORO, ONTARIO K0K 2B0 GENERAL FREIGHT.	<b>067221128</b> Original	<b>*SENAJO TRANSPORT INC</b> 1364 RANG 10 STE CHRISTINE QC J0H 1H0 SINGLE SOURCE.	<b>096983068</b> Original
<b>*MEADOWBURN EXPRESS LTD.</b> 2763 POOLEY AVE MERRITT BRITISH COLUMBIA V0K 2B0 GENERAL FREIGHT.	<b>104754977</b> Original	<b>*SHARPLES, PETER, A</b> 711 BEACH BLVD HAMILTON, ONTARIO L8H 6Y5 OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT.	<b>018518675</b> Original
<b>*MICHAEL O'KEEFE LTD</b> L17 C9 SANDWICH S TECUMSEH R2, ONTARIO N8N 2M1 GENERAL FREIGHT; TANK.	<b>033213673</b> Original	<b>*SHEAR, JAMES, C</b> BOX 580A ROUTE 1 ADAMS NY, USA 13605 SINGLE SOURCE.	<b>104699867</b> Original
<b>*MOFFATT, DENNIS, G</b> 9 PRINCESS ST AP303 ORANGEVILLE, ONTARIO L9W 1W1 GENERAL FREIGHT.	<b>052564952</b> Original	<b>*SMITHLER, JAMES, L</b> 2920 SMITHLER RD WEEDSPORT NY, USA 13166 SINGLE SOURCE.	<b>104698404</b> Original
<b>*OJIBWAY TRANSPORTATION INC.</b> 5353 MAPLEWOOD DR WINDSOR, ONTARIO N9C 3Y6 INTERMEDIARY; GENERAL FREIGHT.	<b>104700011</b> Original	<b>*STEVENSON, JOHN, R</b> L7 C8 LOBO TP ILDERTON RR1, ONTARIO N0M 2A0 TANK.	<b>022548130</b> Amend
<b>*ONTARIO WHOLESALE DISTRIBUTORS INC</b> 3764 JORAN RD, P O BOX 339 JORDAN STATION RR1, ONTARIO L0R 1S0 GENERAL FREIGHT.	<b>079900571</b> Original	<b>*TRANSPORT DENIS LABONTE INC.</b> 875 RTE 249 SUD ST ELIE D ORFORD QUE J0B 2S0 SINGLE SOURCE; GENERAL FREIGHT.	<b>104298722</b> Original
<b>*PHILIP ENTERPRISES INC</b> 52 IMPERIAL ST HAMILTON, ONTARIO L8L 4E2 GENERAL FREIGHT; TANK.	<b>014264551</b> Original	<b>*TRANSPORT JEAN DE LACHEVROTIERE INC</b> 8255 CLOVIS LAVAL QUEBEC H7A 1A7 SINGLE SOURCE.	<b>089880956</b> Original
<b>*RYAN, BRENT, M</b> L91 C1 GLENELG TP MARKDALE R6, ONTARIO N0C 1H0 GENERAL FREIGHT.	<b>095622683</b> Original	<b>*TRANSPORT JEAN-GUY BRETON INC</b> 1043 RUE LABBE CP23 ST FERDINAND QUE G0N 1N0 SINGLE SOURCE; GENERAL FREIGHT.	<b>085672875</b> Original
<b>*S.M.O. SYSTEMS INC.</b> L16 C4 BOX 237 GORMLEY, ONTARIO L0H 1G0 GENERAL FREIGHT.	<b>102464886</b> Original	<b>*TRANSPORT LIVBEC INC.</b> 3585 VINCENT ST ST-JEAN-BAPTISTE QUEBEC J0L 2B0 GENERAL FREIGHT.	<b>104311183</b> Original
<b>*SCHULTZ, CHARLES, H</b> MOUNT PLEASANT RD BOX 91A DONGOLA ILL US, USA 62926 GENERAL FREIGHT.	<b>104694872</b> Original	<b>*TRANSPORT VAL-MART INC.</b> 1091 ST-PAUL FARNHAM QUEBEC J2N 2L2 SINGLE SOURCE; GENERAL FREIGHT.	<b>103846677</b> Original
<b>*SCOTT, MICHAEL, F</b> L10 C12 COLBORNE GODERICH R6, ONTARIO N7A 3Y3	<b>071952653</b> Original	<b>*UNITED INDEPENDENT OPERATORS LIMITED</b> 1 WHITMORE RD UN16-17 WOODBIDGE, ONTARIO L4L 8G4 HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (01000) METROPOLITAN TORONTO R, (27000) YORK R.	<b>098428204</b> Amend

<b>*VAN-HAAREN, PERRY, A</b> 476 FAIRVIEW RD FORT ERIE, ONTARIO L2A 4S3 GENERAL FREIGHT.	<b>034371046</b> Original	<b>ONTARIO/QUEBEC, ONTARIO/MANITOBA, ONTARIO/USA BORDER CROSSINGS:</b>	
<b>*VARDY, SANDRA, L</b> 2274 NEW ST BURLINGTON, ONTARIO L7R 1J3 GENERAL FREIGHT.	<b>077405797</b> Original	<b>CENTRAL CANADA EQUIPMENT (THUNDER BAY) LIMITED</b> 1055 COMMERCE ST THUNDER BAY, ONTARIO P7E 6E8 GENERAL FREIGHT; TANK.	<b>000533295</b> Original
<b>*WALTON, RICHARD, J</b> 340 SOUTHARD RD APT2 CATO NY, USA 13033 SINGLE SOURCE.	<b>104704102</b> Original	<b>DALE HOFFMAN &amp; SONS ELEVATOR INC.</b> 21521 EAST MICHIGAN AV MARSHALL MICHIGAN, USA 49068 GENERAL FREIGHT.	<b>104734536</b> Original
<b>*WESTERN LOGISTICS INC.</b> 2690 NOOTKA ST VANCOUVER BC V5M 3M5 GENERAL FREIGHT.	<b>101520910</b> Original	<b>INTER-CITY TRUCK LINES (CANADA) INC</b> 1370 DUNDAS ST E SUITE 205 MISSISSAUGA, ONTARIO L4Y 4G4 GENERAL FREIGHT.	<b>001600771</b> Amend
<b>*WHITE FOX TRUCKING INC</b> 107 ELPIS RD CLEVELAND NY, USA 13042 SINGLE SOURCE.	<b>104703928</b> Original	<b>JETT LINEHAUL INC</b> 4 DREW AVE CAMBRIDGE, ONTARIO N1S 3R3 GENERAL FREIGHT.	<b>101972822</b> Original
<b>*WILLIAMS, GERALD, L</b> 6489 RD 1 RED CREEK NY, USA 13143 SINGLE SOURCE.	<b>104698730</b> Original	<b>K &amp; P TRUCKING CO.</b> 3862 ST RT 103 S BOX 179 WILLARD OHIO, USA 44890 GENERAL FREIGHT; TANK.	<b>104746234</b> Original
<b>*175681 CANADA INC.</b> 94 GEORGES APT 2 MASSON QUEBEC J0X 2H0 SINGLE SOURCE; GENERAL FREIGHT.	<b>104740961</b> Original	<b>KEN STAUB JR TRUCKING INC</b> 4786 EAST RIVER RD GRAND ISLAND NEW YORK, USA 14072 GENERAL FREIGHT; TANK; HOUSEHOLD GOODS.	<b>073315788</b> Amend
<b>*2540-4237 QUEBEC INC</b> 111 RUE DUGAL MASSON QUEBEC J0X 2H0 SINGLE SOURCE.	<b>090730552</b> Original	<b>LES DEMENAGEMENTS VALOIS INC</b> 910 MCDOUGALL TROIIS-RIVIERES QUEBEC G9A 2T6 GENERAL FREIGHT; HOUSEHOLD GOODS.	<b>080797068</b> Original
<b>*2543-0562 QUEBEC INC.</b> 212 GRAVEL ST-EUSTACHE, QC J7P 3Z2 SINGLE SOURCE.	<b>102164748</b> Original	<b>LES TRANSPORTS JUMELES INC</b> 125 CH LEBEL C P 871 RIVIERE DU LOUP QUE G5R 3Z5 GENERAL FREIGHT; TANK; HOUSEHOLD GOODS.	<b>094718020</b> Original
<b>*2552-6617 QUEBEC INC.</b> 121 4 IEEME AVENUE SHERBROOKE QUEBEC J1G 2L2 SINGLE SOURCE; GENERAL FREIGHT.	<b>104740309</b> Original	<b>LOGISTICS RESOURCES INC.</b> 141 PERKINS ROW TOPSFIELD MASSACHUSETTS, USA 01983 GENERAL FREIGHT; TANK.	<b>104660764</b> Original
<b>*2623-8253 QUEBEC INC.</b> 2640 DU MANOIR APT104 VAUDREUIL QC J5V 5M5 SINGLE SOURCE.	<b>104697966</b> Original	<b>M &amp; M FOURNEL'S CORP LTD</b> 1961 MERIVALE RD NEPEAN, ONTARIO K2G 1G1 GENERAL FREIGHT; TANK.	<b>080760192</b> Original

**CORRIDOR APPLICATIONS:**

**NOTE:** The Motor Vehicle Transport Act, 1987, Regulations SOR 1987-1026, section 9 provides that a corridor operation is exempt from the application of subsections 8(3) to (5) of the Act (public interest test).

The following applicants have applied for Authority to offer a transportation service through Ontario, provided there is no pickup or delivery in Ontario, utilizing the appropriate border crossings:

<b>MCMULLEN, R-GLEN</b> L2 C8 THUR TP. BX 159 FOXBORO, ONTARIO K0K 2B0 GENERAL FREIGHT.	<b>067221128</b> Original
<b>PAUL KING CONSTRUCTION LTD.</b> L2 C9 MACHAR SOUTH RIVER, ONTARIO P0A 1X0 GENERAL FREIGHT.	<b>090021968</b> Amend

**ROGERS CARTAGE CO**  
4428 W MIDLOTHIAN TURNPIKE  
CRESTWOOD IL, USA  
60445  
TANK.

**079968565**  
Amend

**S.M.O. SYSTEMS INC.**  
L16 C4 BOX 237  
GORMLEY, ONTARIO  
L0H 1G0  
GENERAL FREIGHT.

**102464886**  
Original

**SCHULTZ, CHARLES, H**  
MOUNT PLEASANT RD BOX 91A  
DONGOLA ILL US, USA  
62926  
GENERAL FREIGHT.

**104694872**  
Original

**SCOTT, MICHAEL, F**  
L10 C12 COLBORNE  
GODERICH R6, ONTARIO  
N7A 3Y3  
GENERAL FREIGHT; TANK; HOUSEHOLD GOODS.

**071952653**  
Original

**STAGECOACH CARTAGE AND  
DISTRIBUTION INC**  
7158 MERCHANT  
EL PASO TEXAS USA, USA  
79915  
GENERAL FREIGHT.

**104692805**  
Original

**SUPERIOR LTD.**  
N3436 COUNTY HIGHWAY D  
PESHTIGO WISC, USA  
54157  
GENERAL FREIGHT.

**104694779**  
Original

**TRANSPORT DENIS LABONTE INC.**  
875 RTE 249 SUD  
ST ELIE D ORFORD QUE  
J0B 2S0  
GENERAL FREIGHT.

**104298722**  
Original

**TRANSPORT JEAN-GUY BRETON INC**  
1043 RUE LABBE CP23  
ST FERDINAND QUE  
G0N 1N0  
GENERAL FREIGHT.

**085672875**  
Original

**TRANSPORT VAL-MART INC.**  
1091 ST-PAUL  
FARNHAM QUEBEC  
J2N 2L2  
GENERAL FREIGHT.

**103846677**  
Original

**VARDY, SANDRA, L**  
2274 NEW ST  
BURLINGTON, ONTARIO  
L7R 1J3  
GENERAL FREIGHT.

**077405797**  
Original

**175681 CANADA INC.**  
94 GEORGES APT 2  
MASSON QUEBEC  
J0X 2H0  
GENERAL FREIGHT.

**104740961**  
Original

**2552-6617 QUEBEC INC.**  
121 4 IEME AVENUE  
SHERBROOKE QUEBEC  
J1G 2L2  
GENERAL FREIGHT.

**104740309**  
Original

## ONTARIO/QUEBEC, ONTARIO/MANITOBA BORDER CROSSINGS:

**THOMAS M. MORLEY INC.**  
44930 MORLEY DRIVE  
MT CLEMENS MICHIGAN, USA  
48043  
GENERAL FREIGHT; TANK.

**080282595**  
Amend

## ONTARIO/MANITOBA, ONTARIO/USA BORDER CROSSINGS:

**WESTERN LOGISTICS INC.**  
2690 NOOTKA ST  
VANCOUVER BC  
V5M 3M5  
GENERAL FREIGHT.

**101520910**  
Original

## ONTARIO/USA BORDER CROSSINGS:

**A. N. WEBBER INC.**  
ONE ISSERT DR  
KANKAKEE ILLINOIS, USA  
60901  
GENERAL FREIGHT.

**088344130**  
Original

**TILFORD TRUCKING INC**  
OLD HWY 70 S BX 34  
READYVILLE TN, USA  
37149  
GENERAL FREIGHT.

**103672488**  
Original

## TRUCK TRANSPORTATION ACT, 1988 LOI DE 1988 SUR LE CAMIONNAGE

The following are applications for operating licences under the Truck Transportation Act, 1988, S.O. 1988, Chapter 64. These Applicants have been found to meet the fitness requirements pursuant to section 6 of that Act and the Registrar of Motor Vehicles proposes to issue the licences unless a person, within thirty days of this publication, serves on the Applicant and files with the Registrar of Motor Vehicles with the prescribed filing fee, a written request for a fitness hearing or a public interest test pursuant to subsection 7 (4) of the Act.

The following applicants have applied for Authority to offer a transportation service as detailed below between (00000) POINTS IN ONTARIO:

**B. F. M. LAMBTON PRODUCTIONS INC.**  
415 EXMOUTH STREET UNIT 5  
SARNIA, ONTARIO  
N7T 5P1  
GENERAL FREIGHT.

**104404210**  
Original

**BELJO, VESELKO**  
5259 ASTWELL AVE  
MISSISSAUGA, ONTARIO  
L5R 3H8

**098904667**  
Amend

GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (21102) MISSISSAUGA C.

**BIRD, EDWARD, J**  
L15 C6 ESQ  
GEORGETOWN (HALTON) R3, ONTARIO  
L7G 4S6  
GENERAL FREIGHT.

**031151228**  
Original

**DANCAUSE, J, CHRISTIAN**  
340 DIXON RD APT1706  
TORONTO, ONTARIO  
M9R 1T1  
GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (01102) ETOBICOKE C.

**087113458**  
Original

<b>F. SANTINO HAULAGE LTD.</b> 1165 WILLOWBANK TRAIL MISSISSAUGA, ONTARIO L4W 4B9 GENERAL FREIGHT.	<b>103772021</b> Original	<b>MACDONALD, MURRAY, M</b> L9 C2 TINY TP. WYEVILLE R1, ONTARIO L0L 2T0 GENERAL FREIGHT.	<b>066519838</b> Amend
<b>HAMMELL, KEVIN, D</b> 487 4-AV HANOVER, ONTARIO N4N 3G7 GENERAL FREIGHT; TANK.	<b>097197749</b> Original	<b>MARGETTS, MICHAEL, R</b> 27 JERSEYVILLE RD ANCASTER, ONTARIO L9G 1A1 NAMED COMMODITY, (01 519 20) POULTRY OR PIGEONS, LIVE.	<b>025294585</b> Original
<b>HANNAH, PAUL, R</b> 899 CONLIN RD E OSHAWA, ONTARIO L1H 7K5 GENERAL FREIGHT.	<b>071872733</b> Original	<b>MARGISON, WAYNE, A</b> 123 BETTY ANN DR WILLOWDALE, ONTARIO M2N 1X3 GENERAL FREIGHT.	<b>103824231</b> Original
<b>HARBOUR LIGHTS DEVELOPMENTS LIMITED</b> JOWETTS GROVE RD BX38 BAYFIELD, ONTARIO N0M 1G0 GENERAL FREIGHT.	<b>059312303</b> Original	<b>MCLELLAN DISPOSAL SERVICES LIMITED</b> 200 SLIGO RD W BX100 MOUNT FOREST, ONTARIO N0G 2L0 GENERAL FREIGHT.	<b>029297578</b> Original
<b>HENRY, EURI, G</b> 105 HORSELEY HILL DR SCARBOROUGH, ONTARIO M1B 1W4 GENERAL FREIGHT.	<b>020768942</b> Original	<b>OLIVER BROS INC</b> 995 TALBOT RD W WINDSOR, ONTARIO N9H 1A4 OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT; TANK.	<b>069434640</b> Amend
<b>HOLLIDAY, PAUL, G</b> 6773 SEGOVIA RD MISSISSAUGA, ONTARIO L5N 1P1 GENERAL FREIGHT.	<b>009241371</b> Original	<b>OOSTERHOF, NIECO</b> L26 C4 PLYMP WYOMING R2, ONTARIO N0N 1T0 GENERAL FREIGHT; TANK.	<b>002556789</b> Amend
<b>JENWAY GARDENS LTD.</b> L6 C2 NOTT TP RR 3 CREEMORE, ONTARIO L0M 1G0 GENERAL FREIGHT.	<b>104216862</b> Original	<b>PENNOCK, JOHN, RUSSELL</b> L19 C5 LOUGH TP BX142 SYDENHAM, ONTARIO K0H 2T0 GENERAL FREIGHT.	<b>041263375</b> Amend
<b>JOHN VOGEL EQUIPMENT INC</b> L23 SBR WILMOT TWP RR2 NEW HAMBURG, ONTARIO N0B 2G0 GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (25603) WILMOT TP.	<b>028704326</b> Original	<b>RIDDELL, DONALD, O, R</b> L10 C2 ESSA TP ALLISTON R2, ONTARIO L0M 1A0 GENERAL FREIGHT.	<b>006721441</b> Original
<b>KINGSTON CRANE RENTALS LTD</b> 31 STEVE FONYO DR BX44 STN-A KINGSTON, ONTARIO K7M 6P9 GENERAL FREIGHT.	<b>032662143</b> Original	<b>ROUSSEAU &amp; FILS TRUCKING COMPANY LTD</b> 28 LORNE ST CHAPLEAU, ONTARIO P0M 1K0 GENERAL FREIGHT.	<b>053130521</b> Original
<b>LAMOND, CHRISTOPHER, T</b> 32 HILLCREST CRT PO BOX 3 DELAWARE, ONTARIO N0L 1E0 OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT.	<b>077519660</b> Original	<b>SHARPLEY, TYLER</b> 2437 HURONTARIO ST S AP103 MISSISSAUGA, ONTARIO L5A 2G4 GENERAL FREIGHT.	<b>073994977</b> Original
<b>LITWIN, MICHAEL, J</b> 8 POPLAR CR/BX436 RED LAKE, ONTARIO P0V 2M0 TANK.	<b>040608440</b> Original	<b>SHELLARD, ROBERT, N</b> 62 MAPLE AV N BURFORD, ONTARIO N0E 1A0 GENERAL FREIGHT.	<b>010805424</b> Original
<b>LOUKS, DONALD, HAROLD</b> L15 C5 WOODHOUSE TP SIMCOE R5, ONTARIO N3Y 4K4 GENERAL FREIGHT.	<b>002023217</b> Amend	<b>SMITH, RONALD, L</b> RD2 BOX 438C NEWARK VALLEY NY, USA 13811 OWNER DRIVER, exempt from Public Interest Test.	<b>104323354</b> Original
		<b>WANZUK, PETER, G</b> L10 C1 BLAKE TP THUNDER BAY R3, ONTARIO P7C 4V2 GENERAL FREIGHT.	<b>065335610</b> Original

**815462 ONTARIO LTD**  
1765 NEBO RD  
MOUNT HOPE, ONTARIO  
L8R 1W3  
GENERAL FREIGHT.

**098424070**  
Original

### ADDENDUM

Vide Gazette dated February 2, 1991.

Notice re: **JACK TAPSELL TRUCKING INC** **103931189**

**Add:** Under the MOTOR VEHICLE TRANSPORT ACT 1987, PART II and PART III, authorizes the following:

SINGLE SOURCE

Michael T. Curtin  
Manager

## MOTOR VEHICLE TRANSPORT ACT, 1987

### PUBLIC VEHICLES ACT

#### BUS APPLICATIONS:

The following applications for operating licences under Part I of the Motor Vehicle Transport Act, 1987, S.C. 1987, Chapter 35, or the Public Vehicles Act, R.S.O. 1980, Chapter 425 is published pursuant to Section 8, R.R.O. 1980, Regulation 716 under the Ontario Highway Transport Board Act, R.S.O. 1980, Chapter 338. Section 8 provides that the Board may dispose of these applications summarily if no objection is served and filed in the prescribed manner within twenty-nine days of this publication.

#### Motor Vehicle Transport Act, 1987, Part I Applications:

**Herbert Cornforth** **44459**  
296 Viewmount Street  
Oshawa, Ontario  
L1H 7C3

applies for an extra-provincial operating licence as follows:

"For the transportation of passengers on a chartered trip from points in the Regional Municipality of Durham to the Ontario/U.S.A. Border Crossings for furtherance to points in the State of New York and return of the same passengers on the same chartered trip to point of origin.

PROVIDED that the licensee be restricted to one (1) Class "A" Public Vehicle as defined in paragraph (a) (i) of subsection 1 of Section 9 of Regulation 888 under the Public Vehicles Act, R. S. O. 1980, chapter 425."

#### EXPLANATORY NOTE:

Applicant intends to serve organized tours of persons attending bingo games in New York State.

#### TARIFF OF TOLLS:

Flat fee of \$1300.00 round trip overnight accommodation.

**J. I. Denure (Chatham) Limited** **02244-B24**  
165 King Street East  
Chatham, Ontario  
N7M 5K4

applies for transfer of extra-provincial operating licence X-1444 now in the name of Marjorie Peter McIntosh, 123 North Christina Street, Sarnia, Ontario, N7T 5T7.

## PUBLIC VEHICLES ACT

#### PUBLIC VEHICLES APPLICATIONS:

**Airways Transit Service Limited** **31109-0**  
31 Dundas Street East  
Hamilton, Ontario  
L9J 1B1

applies for an extension to public vehicle operating licence PV-3155 as follows:

"For the transportation of passengers and express freight between the Cities of Guelph and Burlington, the Towns of Oakville, Fergus, Milton and Halton Hills, the Village of Elora, the Townships of Puslinch, Eramosa and Guelph and points in the Regional Municipalities of Waterloo and Hamilton-Wentworth, on the one hand, and the Regional Municipality of Niagara, on the other hand, to connect with Niagara Airbus Inc. for furtherance to or from Buffalo Airport.

PROVIDED that the licensee be restricted to public vehicles with a maximum seating capacity of 18 passengers and a minimum seating capacity of 7 passengers exclusive of the driver."

#### TARRIF OF TOLLS

##### Hamilton Division:

No. of Passengers:	1	2	3	4	5
Hamilton	\$50.00	\$75.00	\$90.00	\$110.00	\$125.00
Burlington	\$50.00	\$75.00	\$90.00	\$110.00	\$125.00
Oakville	\$55.00	\$80.00	\$96.00	\$120.00	\$135.00
Each extra passengers	\$25.00				
Children 2 to 12	\$15.00				
Children under 2	No charge				

Children must be accompanied by an adult.

##### Waterloo Division:

No. of Passengers:	1	2	3	4	5
Kitchener	\$75.00	\$100.00	\$115.00	\$135.00	\$150.00
Waterloo	\$75.00	\$100.00	\$115.00	\$135.00	\$150.00
Cambridge	\$75.00	\$100.00	\$115.00	\$135.00	\$150.00
Each extra passengers	\$30.00				
Children 2 to 12	\$16.00				
Children under 2	No charge				

Children must be accompanied by an adult.

**Albert Dicasa** **44436**  
430 Cannon Street East  
Hamilton, Ontario  
L8L 2C8

applies for a public vehicle operating licence as follows:

"For the transportation of passengers who are developmentally handicapped and/or physically disabled on chartered trips between points in the Regional Municipalities of Hamilton-Wentworth, Haldimand-Norfolk, Halton and the Counties of Brant and Wellington.

PROVIDED that the licensee be restricted to public vehicles that are specially equipped with a lift or ramp mechanism."

*TARRIFF OF TOLLS*

\$2.15 per trip plus \$1.20 per kilometre travelled;

no time charges for loading, unloading, or time elapsed for trip;

charges are related to straight distance only unless prescheduled stops included."

**J. I. DeNure (Chatham) Limited****02244-B23**

165 King Street East  
Chatham, Ontario  
N7M 5K4

applies for an extension to public vehicle operating licence PV-1977, page 10 as follows:

Second alternative route from Sarnia to the City of London by way of County Road No. 14 between Mount Brydges and the City of London.

Time table remains unchanged.

**Gail Rockey****44136-D**

o/a Onaping Falls Taxi  
10 Fraser Avenue  
Onaping, Ontario  
POM 2R0

applies for a public vehicle operating licence as follows:

"For the transportation of passengers who are employees of the Canadian National Railway Company on a chartered trip to or from the Township of Folley, in the District of Parry Sound

PROVIDED that the licensee be restricted to the use of Class "D" public vehicles as defined in paragraph ((a) (iv) of sub-section (a) (iv) of sub section 1 of Section 9 of Regulation 888 under the Public Vehicles Act, R.S.O. 1980, chapter 425 and having a maximum seating capacity of 29 passengers exclusive of the driver."

*TARRIFF OF TOLLS:*

Ministry of  
Transportation and  
Communications

Ontario

EAST BUILDING,  
1201 WILSON AVE.  
DOWNSVIEW, ONTARIO,  
M3M 1J8

# TARIFF OF CHARTERED TRIP RATES (Section 18 Public Vehicles Act)

NOTE: (1) Submit 3 copies of Tariff and separate Tariff for each class of vehicle.  
(2) Column 1 refers to Equipment and Service Points. Column 2 refers to other points which are not protected by virtue of:

- (a) these points are not authorized in your operating licence;
- (b) these points include deadhead charges in the origination of the charter;
- (c) linehaul charges from these points are greater than linehaul charges from the nearest Equipment Point.

(3) Separate tariff form is required when line 1 -- column 1 charges are not identical between those listed in equipment points column (ii); also, when column 2 charges are not identical to those listed under all other points column (iii).

(4) Deadhead charges for services involving drop-off and subsequent pick-up are to be listed under supplementary charges.

TARIFF FOR CLASS A B C D VEHICLE  
(CIRCLE APPROPRIATE CLASS)

NAME OF OPERATOR: David Roebuck Operating Facilities Inc.

DATE: Jan 21/91 AUTHORIZED SIGNATURE David Roebuck

FARE OR CHARGE COMPONENTS	(i) SEATING CAP.		SEATING CAP. ....		SEATING CAP. ....		SEATING CAP. ....		(ii) EQUIPMENT POINTS AT WHICH THIS CLASS VEHICLE IS USUALLY STORED		(iii) ALL OTHER POINTS PER NOTE (2) ABOVE
	COLUMN 1	COLUMN 2	COLUMN 1	COLUMN 2	COLUMN 1	COLUMN 2	COLUMN 1	COLUMN 2			
1. CHARTER LINE HAUL CHARGE PER KILOMETRE											10 Fraser Ave Oshawa
2. CHARGE PER DEADHEAD KILOMETRE											
3. SUPPLEMENTARY CHARGES											

ACCOMMODATION, MEALS OR TICKETS OF ADMISSION AS APPROPRIATE TO TRIP ARE TO BE INCORPORATED AND REPORTED IN THE CHARTER TRIP REPORT.

NAME OF CONTACT PERSON David Roebuck TELEPHONE 705-946-2510

## LOI DE 1987 SUR LES TRANSPORT ROUTIERS

### LOI SUR LES VÉHICULES DE TRANSPORT EN COMMUN

#### DEMANDES D'EXPLOITATION D'UN AUTOBUS

Les demandes suivantes de licence d'exploitation ont été présentées en vertu de la partie 1 de la Loi de 1987 sur les transports routiers, L.C. de 1987, chapitre 35 ou de la Loi sur les véhicules de transport en commun, L.R.O. de 1980, chapitre 425 et ont été publiées en vertu de l'article 8, R.R.O. de 1980, régalement 716 pris en application de la Loi sur la Commission des transports routiers de l'Ontario, L.R.O. de 1980, chapitre 338. L'article 8 stipule que la Commission peut traiter ces demandes sans autre forme de procès si aucune objection n'est soulevée et déposée de la manière prescrite dans les vingt-neuf jours suivant la présente publication.

#### DEMANDE PRÉSENTÉE EN VERTU DE LA PARTIE I DE LA LOI DE 1987 SUR LES TRANSPORTS ROUTIERS

**Herbert Cornforth** 44459  
296 Viewmount Street  
Oshawa, Ontario  
L1H 7C3

présente une demande de permis de transport extra-provinciale aux fins suivantes:

“Pour le transport nolisé aller-retour de passagers à les frontières Ontario/É.U. à lieux situés aux l'État de New York.

Sous Réserve que le titulaire ne soit autorisé à opérer que des véhicules de transport en commun de catégorie “A” tels que définis par l'article 9 (1), alinéa (a) (i) du règlement 888 adopté en vertu de la loi sur les véhicules de transport en commun L.R.O., c. 425.”

*TARIF:*

Voir les tarifs en anglais.

**J. I. Denure (Chatham) Limited** 02244-B24  
165 King Street East  
Chatham, Ontario  
N7M 5K4

présent une demande de transfert de permis d'exploitation extra-provinciale PVX-1444 actuellement délivré à Marjorie Peter McIntosh, 123 North Christina Street, Sarnia, Ontario, N7T 5T7.

### LOI SUR LES VÉHICULES DE TRANSPORT EN COMMUN

#### DEMANDES D'EXPLOITATION D'UN AUTOBUS

**Airways Transit Service Limited** 31109-O  
31 Dundas Street East  
Hamilton, Ontario  
L9J 1B1

présente une demande d'étendre de permis No. 3155 d'un véhicule de Transport en commun aux fins suivantes:

“Pour le transport de passagers et fret express entre les Cités de Guelph et Burlington, Les Villes de Oakville, Fergus, Milton et Halton Hills, le Village d'Elora, les Cantons de Puslinch, Eramosa et Guelph et lieux aux

les Municipalité Régionale de Waterloo et Hamilton-Wentworth d'une part et le Municipalité Régionale de Niagara D'autre part, pur se joindre avec Niagara Airbus In. pour l'avancement à ou à partir de l'aéroport de Buffalo.

Sous Réserve que le titulaire ne soit autorisé à opérer que des véhicules de transport en commun qui pouvant transporter au plus 18 passagers où moyen que 7 passagers en plus du conducteur.”

*TARIF:*

Voir le tarif en Anglais.

**Albert Dica** 44436  
430 Cannon Street East  
Hamilton, Ontario  
L8L 2C8

présente une demande de permis de transport d'un véhicule de transport en commun aux fins suivantes:

“Pour le transport nolisé de passagers qui est les déficients mentaux ou diminués physiques entre divers lieux situés aux les Municipalité Régionale de Hamilton-Wentworth, Haldimand-Norfolk et Halton, les comtés de Brant et Wellington.

Sous Réserve que le titulaire ne soit autorisé à opérer que des véhicules équipe avec une mécanisme de levage ou une rampe de déchargement.”

*TARIF:*

Voir le tarif en Anglais.

**J. I. DeNure (Chatham) Limited** 02244-B23  
165 King Street East  
Chatham, Ontario  
N7M 5K4

présent une demande d'étendre de permis No. 1977 d'un véhicule de Transport en commun aux fins suivantes:

“Deuxième route alternatif à partir de Sarnia à le Cité de London et retour par chemin de comté 14 entre Mount Brydges et le cité de London.”

Horaire ne change pas.

**Gail Rocky** 44136-D  
o/a Onaping Falls Taxi  
10 Fraser Avenue  
Onaping, Ontario  
POM 2R0

présente une demande d'un permis de transport en commun aux fins suivantes:

“Pour le transport nolisé de passagers qui est travailleur du Canadian Railway Company à et à partir de le Canton de Folley situé aux le District de Parry Sound.

Sous Réserve que le titulaire ne soit autorisé à opérer que des véhicules de transport de catégorie “D” tels que définis par l'article 9 (1), alinéa (a) (iv) du règlement 888 adopté en vertu de la loi sur les véhicules de transport en commun, L.R.O., c. 425 et pouvant transporter au plus 29 passagers assis en plus du conducteur.”

*TARIF:*

Voir le tarif en Anglais.

Felix D'Mello  
Board Secretary

# Government Notices Respecting Corporations Avis du gouvernement relatifs aux compagnies

## Certificates of Incorporation Certificats de constitution

NOTICE IS HEREBY GIVEN that a certificate of incorporation under the *Business Corporation Act, 1982* has been endorsed:

AVIS EST DONNÉ PAR LA PRÉSENTE que, conformément à la *Loi de 1982 sur les compagnies*, un certificat de constitution en personne morale a été inscrit pour les compagnies suivantes :

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corp. No. Comp. de l'Ontario n°
1991-02-01		Linotext Colour Imaging Inc., Toronto	0929560	Winner Laser/Movie & Hi-Fi Centre Inc., Scarborough	0929578
Aircon Systems Inc., Churchill	0929544	Loren International Ltd., Willowdale	0927157	Xpressions Imaging Concepts Inc., Toronto	0929508
Allan Atkinson Tele/Mail Ltd., Beaverton	0929563	Lovatt & Associates Inc., King City	0929813	929422 Ontario Limited, Toronto	0929422
Astronic Component Limited, Markham	0929570	M & S Sports Inc., Toronto	0929540	929510 Ontario Inc., Oakville	0929510
B.P.F. (Scarborough) Inc., Mississauga	0929594	M.Z. Maintenance Services Ltd., Toronto	0929543	929511 Ontario Limited, Toronto	0929511
Canworld Marketing Inc., Mississauga	0929801	Manufacturers Information Systems Inc., Newmarket	0929547	929513 Ontario Limited, Toronto	0929513
Commtec Communications group Inc., Toronto	0929559	Media Collision Inc., Toronto	0929565	929526 Ontario Inc., Richmond Hill	0929526
Crest Uniform Canada Ltd. Les Uniformes Crest Du Canada Ltee, Toronto	0929561	MHS Holdings Inc., Etobicoke	0929473	929530 Ontario Ltd., London	0929530
Daley Computer Systems Ltd., Watford	0929580	Midnorthern Vending Inc., Downsview	0929527	929534 Ontario Limited, Toronto	0929534
Dallmatt Investments Inc., Mississauga	0929405	Mortgage Investment House Limited, Don Mills	0929582	929536 Ontario Inc., Scarborough	0929536
Datamine Canada Inc., Toronto	0929812	N B S Dundas Inc., St Catharines	0929363	929539 Ontario Inc., Toronto	0929539
Dixie 401 Truck Wash & Lube Inc., Mississauga	0929592	Napa Valley Grape Juice (1991) Inc., Toronto	0929574	929542 Ontario Limited, Toronto	0929542
Dodge Distributions Ltd., Brockville	0929586	Noodle Kitchen Ltd., Willowdale	0929523	929550 Ontario Limited, Markham	0929550
Eastern Sound Inc., Toronto	0929507	Olbrich Investments Limited, Mississauga	0929529	929551 Ontario Limited, North York	0929551
Enviroplast Inc., Mississauga	0929532	Omatech Holdings Inc., Mississauga	0929576	929552 Ontario Inc., Oakville	0929552
ESC International Corporation, Toronto	0929568	P.C. And B. Productions Inc., Toronto	0929589	929553 Ontario Inc., Rexdale	0929553
Evergreen Development Con- sultants Limited, Downsview	0929809	Peter I. Horton Communications Ltd., Toronto	0929569	929556 Ontario Limited, Toronto	0929556
Gedac Consultants Inc., Richmond Hill	0929557	Photo Menu Signs Ltd., Scarborough	0929804	929562 Ontario Limited, Toronto	0929562
Golden Choice Enterprises Inc., North York	0929598	Praxis Limited, Richmond Hill	0929583	929566 Ontario Inc., East York	0929566
Goldport Trading Inc., Richmond Hill	0929803	Prime Auto Body Ltd., Markham	0929545	929577 Ontario Limited, Brampton	0929577
Hung's Management & Associates Ltd., Pickering	0929549	Rajpoot Jewellers Ltd., Brampton	0929541	929585 Ontario Limited, Limehouse	0929585
Icon Security Inc., Etobicoke	0929537	Ram Technologies Inc., Milton	0929554	929590 Ontario Limited, Toronto	0929590
IMC Health Care Inc., Richmond Hill	0929520	Rippers Leasing Ltd., Burlington	0929808	929591 Ontario Inc., Keswick	0929591
Innovative Micro Consultants Inc., Weston	0929600	Royal Door Sales & Services Ltd., Concord	0928991	929593 Ontario Ltd., Toronto	0929593
Intermode Inc., Toronto	0929587	Shoppers Used Restaurant Equipment Inc., Toronto	0929572	929595 Ontario Limited, Toronto	0929595
International Print Group Inc., Islington	0929579	Sinthetic Research Corporation, Markham	0929555	929596 Ontario Inc., Weston	0929596
Jet Image Inc., Scarborough	0929512	SNC Business MacHines Inc., Scarborough	0929564	929599 Ontario Limited, Toronto	0929599
Johnny's Plumbing & Heating Inc., Toronto	0929525	Solar Dynamics Inc., Toronto	0929575	929802 Ontario Ltd., Scarborough	0929802
Kathad Investments Limited, Toronto	0929538	Solar Image Toronto Inc., North York	0929811	929805 Ontario Inc., Scarborough	0929805
L.A. Shirts Inc., Scarborough	0929528	Stouffville Business Court Inc., Stouffville	0929558	929807 Ontario Limited, Scarborough	0929807
La Piccola Princess Italian Bakery Inc., Bradford	0929573	T. & T. Landscape Ltd., Concord	0929548	929810 Ontario Limited, North York	0929810
Legal Memory Media Productions Inc., Toronto	0929588	Textware Corporation, Toronto	0929522	1991-01-18	
		The Furniture Artisans Inc., Woodbridge	0927156	Ryan Group Design And Marketing Solutions Inc, Ottawa	0924203
		Tony Wong Enterprises Inc., Don Mills	0929514	The Northern Development Group Inc., Iroquois Falls	0923296
		U N I Convention Productions Inc., Toronto	0929509	1990-11-20	
				912668 Ontario Inc., St Catharines	0912668
				1991-01-22	
				Fanatik Business Ventures Ltd., North York	0928200
				1991-01-23	
				A-Side Construction Ltd., Ottawa	0924214
				Altacima Diversified Corporation, London	0922038
				Ausgro Products Ltd., Niagara-On-The-Lake	0918808
				Beartek Incorporated, Cambridge	0925283
				Beau-Matt Inc., Midland	0911297
				Bowen Windows Inc, Gloucester	0924217

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Comp-U-Link Training & Consulting Inc., Ottawa .....	0924218	Conventional Means Conference And Meeting Planners Inc., Scarborough .....	0928693	Soundsculpture Incorporated, Toronto .....	0928730
Cra-Zee Wear Canada Inc., Sault Ste Marie .....	0882361	Dard. Holdings Ltd., Wasaga Beach .....	0911305	Stephen M. Armstrong Consulting Inc., Toronto .....	0928731
Funtastic Pools Ltd., Winchester ..	0924221	Deson Furniture Ltd., Markham ..	0928714	Swan On The Rideau (1991) Ltd., Ottawa .....	0924224
Gary G. Graham Associates Inc., Nepean .....	0924212	Diamond Vending Services Ltd., London .....	0922042	Switch Link Components Inc., Mississauga .....	0928715
Kernohan Environmental Corporation, Waterloo .....	0925282	Dowling Transport Inc., Mississauga .....	0928724	T W Watch Company Ltd., Scarborough .....	0928703
Loopholes Soft Pretzels Inc., London .....	0922037	Edward A. Nixon & Associates Inc., Markham .....	0928679	T. Hikele Inc. St Thomas .....	0922043
Mark Anthony Collision & Towing Services Ltd, Thorold ..	0918806	Federal K. International Inc., Etobicoke .....	0928723	TCE Film Productions, Inc., Toronto .....	0928763
Ontario Bookkeeping Services Ltd., Odessa .....	0920615	Gilchris Associates Inc., Toronto ..	0928733	The Business Depot Ltd., Markham .....	0928688
Piperhill Publications Inc., Ottawa	0924220	Gloria Landscaping Inc., Willowdale .....	0928720	The Entertrainers Ltd., Toronto ...	0928725
Print Time Ltd., Thunder Bay ...	0917224	Greenfield Group (2000) Developments Inc., Downsview	0928716	The R Factor Rigging Ltd., Toronto .....	0928685
Riviera Health Club Ltd., Nepean ..	0924213	Hubway Restaurants Inc., Sault Ste Marie .....	0882362	Timkau Plumbing Inc., Kitchener ..	0925284
Southwell Realty Ltd., Carleton Place .....	0924222	J Mac Equipment Services Ltd., Scarborough .....	0928692	Topgun Pilot Car Service Inc., Brantford .....	0928689
Supreme Italian Foods Inc., London .....	0922036	John's Bad Boy Gym, Inc., Stoney Creek .....	0919768	Twin Corn Stoves Ltd., Beeton ...	0911302
Tericara Group Limited, Midland ..	0911298	Johnathan's Studio Of Photography Inc., Willowdale ..	0928756	Urban Film Corporation, Toronto ..	0928741
The Shaver Holding Group Inc., Thunder Bay .....	0917223	Kemeron Corp. Ltd., Weston .....	0928755	Vaughn Brandt Ltd., Kettleby ...	0928677
Trans-Business Services Inc., Hagersville .....	0919764	Ken Five Enterprises Ltd., Toronto .....	0917941	Viconi Holdings Inc., Toronto ....	0928758
Trax Personnel Services Inc., Oshawa .....	0917939	Kevock Inc., Weston .....	0928699	Village Fireplace Inc., Brooklin ..	0917943
911299 Ontario Ltd., Orillia .....	0911299	Marin Contracting Limited, Toronto .....	0928684	Viscount Project Management And Construction Ltd, Russell ..	0924227
911300 Ontario Inc., Barrie .....	0911300	MBL Renovations Ltd., Downsview .....	0928761	W & J Environmental Systems Ltd., Brockville .....	0920618
911301 Ontario Inc., Barrie .....	0911301	MDS Health Ventures International Limited, Etobicoke	0928712	Wrap-Rite Hay Systems Limited, Brockville .....	0920617
916985 Ontario Inc., Windsor ....	0916985	MITV Inc., Toronto .....	0928672	WRE Properties Limited, Fonthill ..	0928764
917938 Ontario Ltd., Scarborough	0917938	Neil Finney General Contracting Ltd., Lindsay .....	0928728	Wynn Technologies Inc., Scarborough .....	0928739
918807 Ontario Inc., Beamsville ...	0918807	Nine Mile Farms Inc., Crysler ....	0924226	Zabeeb Marketing Inc, Windsor ...	0916987
918810 Ontario Inc., Welland ...	0918810	Nobellian Enterprises Inc., London .....	0918812	911303 Ontario Ltd., Midland ....	0911303
919765 Ontario Limited, Hamilton	0919765	Northumberland Theatres Inc., Toronto .....	0928736	911304 Ontario Ltd., Wasaga Beach .....	0911304
922033 Ontario Inc., Woodstock ..	0922033	Overnight Frames Limited, Mississauga .....	0928744	911306 Ontario Inc., Barrie .....	0911306
922034 Ontario Limited, London ..	0922034	Parmar Auto Repair & Sales Ltd., Oakville .....	0928708	916986 Ontario Limited, Harrow ...	0916986
922035 Ontario Ltd., London ....	0922035	Philip Shaw Farms Inc., Dresden ..	0911842	916988 Ontario Limited, Windsor ...	0916988
924215 Ontario Inc., Stittsville ...	0924215	Philippines Express Remittance Inc., Toronto .....	0928738	916989 Ontario Ltd., Windsor ....	0916989
924216 Ontario Inc, Ottawa .....	0924216	Picture Anything Inc., Mississauga .....	0928709	917225 Ontario Limited, Ignace ..	0917225
924219 Ontario Ltd., Clarence Creek .....	0924219	Piper And Cowan Associates Inc., Mississauga .....	0928691	918811 Ontario Limited, St Catharines .....	0918811
924223 Ontario Inc, Kemptville ...	0924223	Prezsmith Engineering Corporation, Toronto .....	0928729	919769 Ontario Ltd., Beamsville ...	0919769
925281 Ontario Limited, Waterloo	0925281	Prime Connections Ltd., Markham .....	0928698	919771 Ontario Inc., Hamilton ...	0919771
926601 Ontario Limited, Cobourg	0926601	Quick Tab Ltd., Mississauga ....	0928762	920036 Ontario Limited, Sudbury ...	0920036
926602 Ontario Inc, Peterborough	0926602	Radley Enterprises Inc., Downsview .....	0928710	920616 Ontario Ltd., Kingston ...	0920616
1991-01-24		RH (Regina) Corporation, Toronto	0928732	920619 Ontario Inc., Belleville ...	0920619
Alaia Design Group Inc., Toronto ..	0928713	Root Leader (Canada) Ltd., Thornhill .....	0928721	922039 Ontario Inc., Kitchener ...	0922039
Aldo & Eddie Renovations Inc., Mississauga .....	0928719	Silvasmith International Inc., Willowdale .....	0928669	922040 Ontario Limited, London ..	0922040
Alharma Limited, Markham .....	0928704	Snowdon Telecommunications Management Services Inc., Locust Hill .....	0917940	922041 Ontario Limited, London ...	0922041
B & G Roofing And Sheet Metal Inc., Hamilton .....	0919767			922044 Ontario Limited, London ...	0922044
BBW International Inc., Toronto ..	0928743			922045 Ontario Limited, London ...	0922045
Belle Vista Showcase Corporation, Toronto .....	0928706			922046 Ontario Limited, London ...	0922046
Beverly Hills Weight Loss Clinics Of Aurora Inc., Aurora .....	0928686			922048 Ontario Ltd., London ....	0922048
Beverly Hills Weight Loss Clinics Of Newmarket Inc., Newmarket	0928687			924225 Ontario Inc., Ottawa .....	0924225
Bluewater's Soup & Deli Inc., London .....	0922047			924228 Ontario Inc., Ottawa .....	0924228
BOK International Inc., Toronto ..	0928754			924229 Ontario Limited, Ottawa ...	0924229
Brandom Kitchens Boutique Ltd., Bowmanville .....	0917942			924230 Ontario Inc., Carleton Place .....	0924230
Capital Homes Inc., Kitchener ....	0925286			925285 Ontario Inc., Fergus .....	0925285
CMF Distribution Inc., Oakville ...	0928683			926603 Ontario Limited, Peterborough .....	0926603
Concord Food Centre Inc., Thornhill .....	0928701			926604 Ontario Inc., Cobourg ....	0926604
				926605 Ontario Limited, Peterborough .....	0926605
				926606 Ontario Inc., Peterborough .....	0926606

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928657 Ontario Inc., Pickering	0928657	Bernco Leasing Ltd., Toronto	0917945	J. Magee Masonry Inc., Barrie	0911310
928670 Ontario Inc., Caledon		Blu Stone Renovations Ltd.,		John Christensen And Associates	
East	0928670	Newmarket	0928778	Ltd., Welland	0918813
928671 Ontario Ltd., Markham	0928671	Blue Heat Video Ltd.,		Jon-Ram Services Ltd., Maple	0928856
928673 Ontario Inc., Toronto	0928673	Mississauga	0928823	KCA Enterprises Ltd., Markham	0928790
928674 Ontario Inc., Toronto	0928674	Bongiorno Investments Ltd.,		L. E. Jules Product Marketing	
928675 Ontario Inc., Toronto	0928675	Scarborough	0928822	Inc., Mississauga	0928797
928676 Ontario Inc., Toronto	0928676	Botman Tile Limited, Oakville	0928795	Larissa Enterprises Ltd.,	
928678 Ontario Inc., Toronto	0928678	Brant Painting And Contracting		Mississauga	0925299
928680 Ontario Limited,		Ltd., Brantford	0928840	Lomas Maintenance Services Inc.,	
Scarborough	0928680	Bullseye Marketing Inc.,		Elora	0925292
928681 Ontario Limited, Toronto	0928681	Willowdale	0928846	Lorcam Investments Inc., Sarnia	0911844
928682 Ontario Limited, Toronto	0928682	Burvie Incorporated, Kincardine	0922054	Mainline Materials Handling Ltd.,	
928690 Ontario Inc., Cornwall	0928690	C.G. Manufacturing &		Mississauga	0928827
928694 Ontario Limited,		Distributing Inc., Cambridge	0925294	Mann Farms Inc., Chatham	0922062
Burlington	0928694	Canadiana Mechanical		Meadow Ranch Farms Inc.,	
928695 Ontario Limited, Toronto	0928695	(Peterborough) Inc.,		Carleton Place	0928816
928696 Ontario Inc., Toronto	0928696	Peterborough	0926607	Merrick Property Management	
928697 Ontario Limited, Weston	0928697	Capa Corporation, Pickering	0928748	Inc., Thornhill	0928784
928700 Ontario Ltd., Scarborough	0928700	CDP Parts Brokers Limited, Orton	0925300	Merritt Sales (Kitchener) Inc.,	
928702 Ontario Limited,		Chris Locke & Associates Ltd.,		Kitchener	0925293
North York	0928702	Carp	0928815	Metro Pump Holdings Inc.,	
928705 Ontario Ltd.,		City Foods Produce Ltd.,		Waterloo	0925298
Etobicoke	0928705	Scarborough	0928769	Migson Public Storage Corp.,	
928707 Ontario Limited,		Compact Mold Inc., Tecumseh	0916994	Toronto	0928788
Islington	0928707	Cousmil Canada Ltd., Toronto	0928781	Movies At Home Inc., Toronto	0928750
928711 Ontario Ltd.,		D & S Translation Services Inc.,		N. Vandelaar Holdings Inc.,	
Woodbridge	0928711	Waterloo	0925295	Niagara Falls	0928814
928717 Ontario Limited,		Darson Realty Properties Inc.,		North Woods Planning	
Scarborough	0928717	Toronto	0928843	Consultants Ltd., Toronto	0928854
928718 Ontario Inc.,		DBA Engineering Ltd., Markham	0928826	Nu Era Signs Ltd., Timmins	0928859
Downsview	0928718	Decofab Inc., Etobicoke	0928802	Obie Construction Ltd.,	
928722 Ontario Inc.,		Double "T" Transportation Inc.,		Woodbridge	0928821
Mississauga	0928722	London	0922052	Owen Chambers And Associates	
928726 Ontario Inc., Toronto	0928726	Duong Investors Group Inc.,		Inc., Scarborough	0928775
928727 Ontario Inc., Don Mills	0928727	Hamilton	0919777	PDQ Direct Marketing Inc.,	
928734 Ontario Inc., Willowdale	0928734	E. Marj Enterprises Inc., North		Downsview	0928803
928735 Ontario Limited, Toronto	0928735	York	0928792	Petrodyme Beaumaris Inc.,	
928737 Ontario Limited, Thornhill	0928737	E.S.G. Beaumaris Ltd., North		North York	0928776
928740 Ontario Limited, Toronto	0928740	York	0928774	Phil's Agricultural Chemicals	
928742 Ontario Inc., Toronto	0928742	Ecos Canada Inc., Toronto	0928785	Ltd., Simcoe	0919772
928745 Ontario Inc., Arnprior	0928745	Edge On Training Inc., Cambridge	0925303	Poulsen Heating & Air	
928757 Ontario Limited, Toronto	0928757	Eelam Enterprises Inc., North		Conditioning (1991) Inc.,	
928759 Ontario Ltd., Toronto	0928759	York	0928767	Leamington	0922060
928760 Ontario Limited,		EFA Trading Inc., Mississauga	0928853	Pro Tech Engineering Inc.,	
Markham	0928760	Efficiency Engineering &		Waterloo	0925296
1991-01-25		Consulting Inc., Willowdale	0928839	Revest Syndication Services Inc.,	
A B C Rentals Cambridge		Elmer Olsen Models Inc.,		Mississauga	0928766
Limited, Cambridge	0925290	Toronto	0928808	Ridgetop General Contracting Ltd,	
A. J. J. A. Transport Ltd.,		Eurotel Developments Inc.,		Dunrobin	0924238
Essex	0916993	Toronto	0928849	RM Storage Products Ltd.,	
Agrofields Limited, Willowdale	0928831	FMC Dance Studio Inc.,		Brampton	0928819
Alastair Salons Inc., Toronto	0918816	Scarborough	0928771	Rylin Corp., Toronto	0928770
Amazon Aquatics Inc., Etobicoke	0928768	Froates Investments Inc.,		Salem Carpets Inc.,	
Ambuco Foods Inc., Oakville	0928800	Hamilton	0919780	St Catharines	0918814
Amcan Parking Corporation,		Future Visions & Concepts Inc.,		Shelmar Business Planning &	
Toronto	0928805	Pickering	0928810	Consulting Inc., Windsor	0916995
Ampro Electric Ltd., London	0922051	Global Recycling Industries,		Soles Sporting Goods Inc.,	
Ana Maria Skin Care Inc.,		Inc., North York	0928861	Toronto	0928844
Toronto	0928858	Glorob Holdings Inc., Sarnia	0911843	Spade Fence And Decks Inc.,	
Arpela Paving Inc., Bradford	0911309	GMA Consulting Inc., Toronto	0928799	Gloucester	0924235
Baraka Sales & Services Inc.,		Go Investments Inc., Thornhill	0928838	Sung Gin Trading Inc., Markham	0928804
Scarborough	0928780	Greenarctic Explorations Inc.,		Tax Partners Inc., Scarborough	0928765
Barbieri Capital Group Inc.,		Toronto	0928842	Tesoro Di Una Principessa Ltd.,	
North York	0928786	Greg Roberts Funeral Home Ltd.,		North York	0928747
Barrett Since 1900 Master Builders		Mildmay	0928865	The Horseless Carriage Pre-Owned	
& Renovators Inc., Ottawa	0924242	Heinicke Realty Limited, Toronto	0928777	Automobile & Truck Sales	
Barry Wade & Associates		Hi-Fifty Land Consultants Corp.,		Inc., Ottawa	0924244
Construction Management		Guelph	0925288	Thunder Plastics Inc.,	
Corporation, London	0922061	Industrial Fence Ltd.,		Mississauga	0928806
Beltan Holdings Inc., Weston	0928779	Bowmanville	0917944	Tom Rae Lodge Ltd., Greensville	0928820

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Tonbucks Enterprises Inc., Weston .....	0928809	928801 Ontario Limited, Etobicoke .....	0928801	Doug Moore Construction Limited, Markham .....	0928904
TPG Technology Consulting Ltd., Ottawa .....	0924237	928807 Ontario Limited, Toronto ..	0928807	Downriver Diner Ontario Inc., Corunna .....	0922063
Trunknet Niagara Inc., Welland ..	0918817	928811 Ontario Limited, Markham ..	0928811	Draincrete Ltd., Toronto .....	0928946
U-Pull Trailers Inc., Richmond Hill .....	0928817	928812 Ontario Inc., Mississauga ..	0928812	Eastham Cleaning Company Inc., Grand Valley .....	0928919
Urgent Parcel Delivery Inc., Kingsville .....	0916991	928824 Ontario Limited, Mississauga .....	0928824	Education Savings Plan Administration Company Limited, Toronto .....	0928882
Wellington Video & Sound Inc., Aurora .....	0928845	928825 Ontario Ltd., Scarborough ..	0928825	Exclusively Leather Furniture (1991) Inc., Ottawa .....	0924250
West Side Communications Inc., Oakville .....	0928830	928828 Ontario Limited, Willowdale .....	0928828	Fashioned Foods Inc., Toronto ..	0928870
World Mini Soccer Inc., Mississauga .....	0928851	928829 Ontario Ltd, Lavigne ....	0928829	Foundry Restaurant Ltd., Barrie ..	0911314
18 Grant Street Holdings Ltd., Toronto .....	0928848	928832 Ontario Inc., Orangeville ..	0928832	Fundamental Technologies Inc., Ancaster .....	0919782
401 Paper & Packaging Inc., Don Mills .....	0928813	928833 Ontario Inc., Burlington ..	0928833	Gateman-Milloy (Western) Inc., Kitchener .....	0925304
5 Warwick Avenue Co-Ownership Inc., Don Mills .....	0928841	928835 Ontario Inc, Burlington ...	0928835	Gemstone Marble & Granite Inc., Etobicoke .....	0925307
882363 Ontario Inc., Sault Ste Marie .....	0882363	928836 Ontario Limited, Etobicoke .....	0928836	Gerald Briggs And Associates (1991) Limited, Orillia .....	0911315
911307 Ontario Inc., Orillia .....	0911307	928837 Ontario Limited, Toronto ..	0928837	Gordon Zack Of Hamilton Inc., Hamilton .....	0919775
911308 Ontario Inc., Barrie .....	0911308	928857 Ontario Inc., Richmond Hill .....	0928857	Graystone Investments (Canada) Inc., Don Mills .....	0928941
916990 Ontario Ltd., Windsor ....	0916990	928860 Ontario Inc., Thornhill ...	0928860	Halton Floorcraft Ltd., Oakville ..	0928911
916992 Ontario Inc., Kingsville ..	0916992	928862 Ontario Limited, Mississauga .....	0928862	International Maple Trading Limited, Toronto .....	0919787
918815 Ontario Inc, Niagara Falls .....	0918815	928863 Ontario Limited, Toronto ..	0928863	Introduce Trading Co. Ltd., Rexdale .....	0928889
919773 Ontario Limited, Hamilton ..	0919773	928864 Ontario Inc., Toronto ....	0928864	J & A Electronics Inc., Willowdale .....	0928872
919774 Ontario Limited, Hamilton ..	0919774	1990-11-27 .....		J.R. Pool Installation & Service Inc., Mount Brydges .....	0922068
919776 Ontario Inc., Burlington ..	0919776	914856 Ontario Ltd., Dundas ....	0914856	J.T.B. Industries Inc., Bramalea ..	0928890
919778 Ontario Inc., Hamilton ...	0919778	1991-01-28 .....		John's Electrical Inc., Hamilton ..	0928927
919779 Ontario Inc., Stoney Creek .....	0919779	A-Structural Company Limited, Concord .....	0928931	Jon Barnett Enterprises Inc., Sutton West .....	0928915
919781 Ontario Limited, Hamilton ..	0919781	Aerial Furniture Design And Manufacturing Inc., Toronto ...	0928910	Kaber Sporting Goods Co., Ltd., Nepean .....	0924249
920620 Ontario Inc., Cherry Valley .....	0920620	Alder Trading Co., Ltd., Scarborough .....	0928902	Knowles Engineering Inc., London ..	0922066
922049 Ontario Inc, Lambeth ....	0922049	Annik Consultants, Inc., Toronto ..	0928924	Landscape Decor & Exterior Design Inc., Toronto .....	0928947
922050 Ontario Inc., London .....	0922050	Autoflex Systems International Ltd., Cambridge .....	0925305	Les Communications Clip Communications Inc., Bradford ..	0928916
922053 Ontario Inc., Muncey ....	0922053	Aziz Spencer & Associates Inc., Mississauga .....	0928922	M. Allen Family Holdings Inc., Nepean .....	0924254
922055 Ontario Inc., Exeter .....	0922055	Baran Analytical Services Inc., Etobicoke .....	0928871	M. V. Colaneri Holdings Ltd., Niagara-On-The-Lake ....	0918819
922056 Ontario Inc., Exeter .....	0922056	Basile Holding Corporation, North York .....	0928920	Meetso Design Inc., Toronto .....	0928879
922057 Ontario Inc., St Marys ...	0922057	Brian G. Bonner & Associates Inc., Mississauga .....	0928937	MPC Ventures Inc., Toronto .....	0928905
922058 Ontario Inc., St Marys ...	0922058	C.J. Laundry Systems Ltd., Mississauga .....	0928899	N.E. Jensen Cheese Limited, Simcoe .....	0919788
922059 Ontario Inc., St Marys ...	0922059	Canadian Biotech Investments Inc., Mississauga .....	0928818	Noga & Associates Inc., Scarborough .....	0928868
924232 Ontario Inc., Ottawa .....	0924232	Cantrace International Inc., North York .....	0928948	Noga & Noga Inc., Scarborough ..	0928869
924233 Ontario Inc., Nepean .....	0924233	Carjev Investments Limited, Brampton .....	0928887	Numont Construction Ltd., Concord .....	0928898
924234 Ontario Inc, Lombardy ...	0924234	Carpet Carpet & Co. Inc., Scarborough .....	0928891	Ocrum Fine Foods Inc., Concord ..	0928888
924236 Ontario Inc., Ottawa .....	0924236	Challenger Logistics Inc., Cambridge .....	0928953	Omo Film Inc., Toronto .....	0928907
924239 Ontario Ltd, Nepean .....	0924239	Cheepoon Ltd., Markham .....	0928925	Ontario Mobile Vacuum Supply Inc., Burlington .....	0919783
924241 Ontario Inc., Clarence Creek .....	0924241	Classic Furs Company Ltd., Etobicoke .....	0928875	Ottawa Parkdale Medical Centre Holdings Limited, Ottawa .....	0924251
924243 Ontario Ltd., Orleans ....	0924243	Computer Enhancement Corporation, Mississauga .....	0928951	P.I.M.A. Marketing Inc., Woodbridge .....	0928886
925287 Ontario Limited, Guelph ..	0925287	Contren Management Consultants Inc., Caledonia .....	0919790	Page Holdings & Investments Inc., Queensville .....	0911313
925291 Ontario Limited, Kitchener .....	0925291	Cooper/Brown Holdings Inc., Guelph .....	0928884	Patriot Construction Ltd., Toronto .....	0928913
925301 Ontario Limited, Guelph ..	0925301	D.V. Consulting Limited, Don Mills .....	0928749		
925302 Ontario Inc., Waterloo ...	0925302	Direct Cargo Inc., Brampton ....	0928909		
926608 Ontario Inc., Lakefield ...	0926608	Distar Distributors Inc., Etobicoke .....	0928955		
926609 Ontario Limited, Ennismore .....	0926609	Docta Inc., Toronto .....	0928897		
928751 Ontario Limited, Ajax ....	0928751				
928752 Ontario Inc., Richmond Hill .....	0928752				
928753 Ontario Limited, Toronto ..	0928753				
928773 Ontario Limited, Toronto ..	0928773				
928791 Ontario Inc., Downsview ..	0928791				
928793 Ontario Inc., Toronto ....	0928793				
928794 Ontario Ltd., Mississauga ..	0928794				
928798 Ontario Ltd., Scarborough ..	0928798				

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Penhold Inc., Toronto	0928894	928901 Ontario Ltd., Richmond Hill	0928901	Jedi Productions Inc., Toronto	0928968
People's Sports Centre Ltd., Scarborough	0928873	928903 Ontario Limited, Toronto	0928903	John Chen Real Estate Limited, Toronto	0928970
Perfect Concept Marketing (Ontario) Inc., Etobicoke	0928943	928908 Ontario Limited, Toronto	0928908	Joseph Barzo Productions Inc., Toronto	0928967
Progress Learning Inc., Toronto	0928866	928912 Ontario Inc., Cornwall	0928912	Kellyghan Enterprises Inc., Toronto	0929208
Protecto Wood And Garden Products Limited, West Hill	0928918	928914 Ontario Inc., North Bay	0928914	Kenwalt Leasing Ltd., Toronto	0929206
PSC The Public Sector Corporation, Toronto	0928921	928917 Ontario Inc., Mississauga	0928917	Laplante Consulting Inc., Niagara Falls	0929258
Roger Turcotte Property Management Ltd, Ottawa	0924255	928926 Ontario Inc., Listowel	0928926	Linmar Sales Ltd., Toronto	0928971
Sonnor Holdings Ltd., Oakville	0928930	928928 Ontario Ltd., Brampton	0928928	Luvino Limited, Brampton	0928976
Sonorte Finish Carpentry Ltd., Toronto	0928876	928932 Ontario Limited, Mississauga	0928932	M.A. Beatty Enterprises Ltd., Rockland	0924258
Stepwolf Trucking Inc., Hawkesbury	0928954	928933 Ontario Inc., Toronto	0928933	M.V.A. Immigration Services Inc., Toronto	0929209
Street People Of Toronto Marketing Inc., Scarborough	0928929	928935 Ontario Limited, Downsview	0928935	Michael David Custom Tailor Ltd., Toronto	0928990
Sulandus Investments Ltd., Ottawa	0924248	928936 Ontario Limited, Toronto	0928936	Minho Trim Carpentry Ltd., Toronto	0929214
The Computer Shield Group Ltd., Toronto	0928874	928938 Ontario Inc., Toronto	0928938	Mocan 2000 Inc., Toronto	0929256
The Henway Motor Car Company Inc., Toronto	0928867	928939 Ontario Ltd., Carleton Place	0928939	Moga Transmission Inc., Mississauga	0929203
The Jewish Directory Inc., Toronto	0928877	928940 Ontario Inc., Parry Sound	0928940	Mosher Inc., Ottawa	0924256
The Nose Inc., Toronto	0928956	928942 Ontario Limited, Toronto	0928942	N & R Simonizing Ltd., Richmond Hill	0928960
The Zante Capital Group Inc., Mississauga	0928880	928944 Ontario Inc., Mississauga	0928944	Nato Construction Company Limited, Markham	0929221
Todd Canada Inc., Ottawa	0924253	928945 Ontario Inc., Toronto	0928945	New Successful Alternative Ltd., Thornhill	0929207
Universal Profile Incorporated, Concord	0928934	928950 Ontario Limited, Toronto	0928950	Nightson Products Ltd., Toronto	0929242
Uniway Marketing Agency Limited, Scarborough	0928949	928952 Ontario Limited, Mississauga	0928952	North American Trash Technologies Inc., Brampton	0929233
Uthayas Supermarket Ltd., Etobicoke	0928923	1991-01-29 A.B. Corporate Holdings Inc., Stittsville	0924259	Olympia Tile International Inc., Toronto	0928975
Walpole Lawn & Garden Equip. & Grinding Service Ltd., Simcoe	0919786	Aftica Mortgage Services Inc., North York	0929253	Paintech Ltd., Milton	0929211
Ward Security Inc., Niagara Falls	0918818	Amacon International Enterprises Inc., Brampton	0929260	Pathway Properties (London) Inc., London	0922074
Westminster Systems Inc., London	0922064	Amazing Elegance Giftware And Decorative Accessories Company Limited, Toronto	0929218	Peninzula Exotic Fruits Inc., Toronto	0929223
911312 Ontario Limited, Barrie	0911312	Ambiance Cushion Corporation Ltd., Concord	0929216	Portuga Construction Ltd., Toronto	0929226
916996 Ontario Ltd., Windsor	0916996	Bayline Construction Inc., Concord	0929231	Poulin-Luterman & Associates Inc., London	0922073
916997 Ontario Ltd., Windsor	0916997	Birr West Drywall & Ceiling Systems Ltd., Denfield	0922069	Profit Vision International Inc., Downsview	0929244
917946 Ontario Inc., Ajax	0917946	Business Opportunities Network Inc., Willowdale	0928988	PSI Compressors Of Brockville Incorporated, Brockville	0929234
917947 Ontario Inc., Whitby	0917947	C.W. Systems Ltd., Toronto	0928995	PWD Savoures Ltd., Willowdale	0929262
919784 Ontario Inc., Ancaster	0919784	Cadcom Inc., Toronto	0929252	Royal Thermographers Centre Ltd., Mississauga	0929215
919785 Ontario Ltd., Burlington	0919785	Chuck Cino Sales Inc., Gilford	0929212	Samuel Packaging Limited, Woodbridge	0929217
919789 Ontario Inc., Burlington	0919789	Computerguru Inc., Markham	0929219	Sandra Dawn Activewear Inc., Navan	0924262
920622 Ontario Inc., Kingston	0920622	Corbeil Films Inc., Toronto	0928969	Shangorilla Investments Ltd., Ajax	0929230
922065 Ontario Limited, London	0922065	Culinary Food Services Ltd., Etobicoke	0928980	Sherbank Management Ltd., Mississauga	0929235
922067 Ontario Limited, Iona Station	0922067	Cumberland Gardens Market Village Inc., Guelph	0929247	Snake Charm Productions Inc., Toronto	0928973
924245 Ontario Inc., Manotick	0924245	Dennis And Wong Real Estate And Management Consultants Ltd, Ottawa	0924257	Solarcan Power Corporation, Mississauga	0929249
924246 Ontario Ltd., Ottawa	0924246	Eastern Sea-Dragon Ltd., Scarborough	0929261	Solid Platinum Investments Limited, Mississauga	0928974
924247 Ontario Ltd., Ottawa	0924247	Eastgas Energy Group Inc., Don Mills	0929240	Space-Man Closets Inc., Concord	0928977
924252 Ontario Inc., Ottawa	0924252	Eco Magnetics Inc., Erin	0929225	Tannis Reconditioning And Salvage Co. Ltd., Brampton	0929210
928878 Ontario Inc., Toronto	0928878	Enigma Productions Inc., Toronto	0929236	Tasker Systems Inc., Toronto	0929227
928881 Ontario Inc., Richmond Hill	0928881	Forest Richmond Of Canada Limited, Weston	0928992	Teamark Trading Company Ltd., North York	0928959
928883 Ontario Limited, St Catharines	0928883	Fran-Car 2000 Inc., Toronto	0929257		
928885 Ontario Limited, Mississauga	0928885	Global Human Resource Centre Inc., Toronto	0929237		
928892 Ontario Inc., Etobicoke	0928892	Gordon MacKay & Associates Ltd., Toronto	0928986		
928893 Ontario Inc., Scarborough	0928893	Great Land Farms Ltd., Wingham	0929238		
928895 Ontario Inc., Toronto	0928895	Ideal Mortgages Ltd., Markham	0929224		
928896 Ontario Inc., Toronto	0928896				
928900 Ontario Inc., Brantford	0928900				

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Tesla Electric Construction Limited, Toronto .....	0928996	Adams Door Systems Inc., Markham .....	0929298	Hockey Talk International Ltd., Cambridge .....	0925320
The Panzerotto & Pizza People Ltd., Toronto .....	0928994	Amer Financial Corporation, Mississauga .....	0929345	Holmar Bio International Inc., Mississauga .....	0929280
Tom Pegg Holdings Inc., Lucknow	0928638	Amethyst Rubber Stamps Company Inc., Ottawa .....	0924273	House Of Spices Inc., Toronto	0929268
Toryss Associates Limited, Richmond Hill .....	0928989	Amp Associates, Incorporated, Oakville .....	0929285	Interfeed Inc., Guelph .....	0925403
W. & R. Ryman Steel And Wire Inc., Mississauga .....	0928981	Ana-Logic Design Inc., Toronto	0929279	Jamark Office Supplies And Furniture Co. Inc., Sarnia .....	0911848
Wah Yan Seafood Limited, Toronto .....	0929245	B.E.C. Agricultural Lands Ltd., Toronto .....	0929353	Jupiter Automobiles Inc., Gloucester .....	0929367
Walkten Leasing Ltd., Toronto	0929205	B.E.C. Development Lands Ltd., Toronto .....	0929354	Kathleen M. Black Consulting Ltd., Islington .....	0929297
Winchester Park General Partner Inc., Osgoode .....	0924261	Beth Oakes & Associates Inc., Toronto .....	0929293	Keewatin Group Ltd., Concord	0929378
Windows Software Centre Inc., Oakville .....	0928978	BJW Enterprises Ltd., Milton	0929381	Le P'Tit Riv Chip Stand Ltd., Sturgeon Falls .....	0929368
Wooden Trim Carpentry Ltd., Toronto .....	0929213	Bone Traffic Services Inc., Mississauga .....	0929281	Lightfall Art & Design Inc., Toronto .....	0929346
Ylia & Michael's Creamery & Appetizers Ltd., North York	0929259	Bora Electrical Contractors Ltd., Thornhill .....	0929369	Lissmar Holdings Inc., Peterborough .....	0929355
922070 Ontario Limited, Arva	0922070	Cache Enterprises Inc., Etobicoke .....	0929284	Lockside Trading Company Ltd., Young's Point .....	0926611
922071 Ontario Inc., Aylmer	0922071	Calabuzzi Investments Ltd., Woodbridge .....	0929380	Lottex Management Inc., Toronto	0929267
922072 Ontario Ltd., Branchton	0922072	Camp Cheung Investments Limited, Windsor .....	0928401	M.L.R. Inc., Downsview .....	0929269
922075 Ontario Ltd., Dorchester	0922075	Cancom Design Inc., Mississauga .....	0929323	Masters & Masters Inc., Cookstown .....	0911320
922076 Ontario Ltd., Dorchester	0922076	Chain Of Sees Enterprises Inc., Manotick .....	0924274	McCauley Roach Enterprises Inc., Etobicoke .....	0929347
922077 Ontario Ltd., Dorchester	0922077	CHG Holdings Inc., Thornhill	0929291	Melo Group Inc., Mississauga	0929312
924260 Ontario Inc, Ottawa	0924260	CMR Holdings Inc., Toronto	0929289	Metro Orthopaedic & Rehabilitation Centre Inc., Toronto .....	0929337
928772 Ontario Limited, Brampton .....	0928772	Collingwood Total Comfort Inc., Collingwood .....	0911321	Michael Quinton Associates Inc., Mississauga .....	0929332
928958 Ontario Limited, Lindsay	0928958	Conkes Business Services Inc., Scarborough .....	0929335	Milan Holdings Corporation, Ilderton .....	0922082
928961 Ontario Inc., Etobicoke	0928961	Corporate Voice Solutions (CVS) Inc., Toronto .....	0929283	Morris Island Holdings Ltd., Ottawa .....	0924271
928962 Ontario Inc., Grand Valley .....	0928962	Crosall Investments Ltd., Toronto .....	0929272	N.T.L. Aluminum Renovations Co. Ltd., Toronto .....	0929324
928963 Ontario Inc., Brampton	0928963	Crystal Graphics Inc., Scarborough .....	0929263	Nehad Allam Architect Inc., Willowdale .....	0929315
928964 Ontario Inc., Brampton	0928964	Custom Color Photo (Sault) Ltd, Sault Ste Marie .....	0882367	Neighbourhood Planning Consultants Inc., Toronto .....	0929342
928965 Ontario Limited, Toronto	0928965	Derry, Michener, Booth & Wahl Inc., Toronto .....	0929379	Old World Style Pizza (Canada) Ltd., Toronto .....	0929356
928966 Ontario Limited, Toronto	0928966	European Health And Body Spa Ltd., Scarborough .....	0929349	Onapex Corporation, Mississauga	0929382
928972 Ontario Limited, Scarborough .....	0928972	Film Industry Locations Maintenance Inc., Toronto	0929266	Oriental Lacquer II (Canada) Inc., Mississauga .....	0929344
928979 Ontario Inc., Downsview	0928979	Filo Entertainment Inc., North York .....	0929287	Panco Consultants Inc., Weston	0929311
928982 Ontario Limited, Agincourt .....	0928982	Fisker, Malcolm Construction Inc., Halton Hills .....	0929313	Paris Pharmacy Services Inc., Sudbury .....	0920040
928983 Ontario Inc., Willowdale	0928983	Furco Electric Inc., Ayr .....	0925319	Pearson Pacific (Canada) Ltd., Hamilton .....	0925401
928984 Ontario Inc., Toronto	0928984	General Window Cleaning Inc., Toronto .....	0929373	Penrose & Partners Inc., Brantford .....	0929364
928985 Ontario Inc., Hamilton	0928985	Genge & Green Plastics Inc., Whitby .....	0929328	Polonia Radio/TV Production Inc., Mississauga .....	0929317
928987 Ontario Limited, Downsview .....	0928987	Glaze-Tech Inc., Toronto	0929333	Pompeo Robson Micron Laboratories Inc., Toronto	0929276
928997 Ontario Limited, Toronto	0928997	Gold Star Investments Limited, Scarborough .....	0917956	Pompeo-Zaffino Micron Inc., Downsview .....	0929277
928998 Ontario Limited, Toronto	0928998	Great Lakes Food Equipment Company Ltd., London .....	0922085	Provincial Sports Management Inc., London .....	0922081
928999 Ontario Limited, Toronto	0928999	Greenport Property Management Inc., Toronto .....	0929339	Racar Rentals Inc., London	0922080
929000 Ontario Limited, Toronto	0929000	Grep Holdings Inc., Toronto	0929290	Ricard Realty Inc., Bracebridge	0929292
929201 Ontario Limited, Toronto	0929201	Hanford's Communications Inc., London .....	0922083	Rite Tyme Marketing Inc., Aylmer .....	0922086
929202 Ontario Inc., Toronto	0929202	Hanna, Ghobrial And Spencer Ltd., Windsor .....	0928403	S. McKechnie Holdings Inc., Waterloo .....	0925318
929204 Ontario Limited, Toronto	0929204			Sherland Properties Ltd., Mississauga .....	0929296
929220 Ontario Inc., Bramalea	0929220				
929228 Ontario Inc., Weston	0929228				
929229 Ontario Inc., Weston	0929229				
929232 Ontario Ltd., Toronto	0929232				
929239 Ontario Ltd., Fergus	0929239				
929241 Ontario Limited, Toronto	0929241				
929243 Ontario Inc., Bracebridge	0929243				
929246 Ontario Inc., Toronto	0929246				
929248 Ontario Limited, Toronto	0929248				
929250 Ontario Limited, Toronto	0929250				
929251 Ontario Limited, Burlington .....	0929251				
929254 Ontario Ltd., Mississauga	0929254				
929255 Ontario Ltd., Etobicoke	0929255				
1991-01-30					
A + B Hives - Rucher Inc., Cookstown .....	0911319				

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Snelling Consultants Inc., Brampton .....	0929264	924270 Ontario Inc., Ottawa .....	0924270	929374 Ontario Limited, Mississauga .....	0929374
Steve Kulmatycky Holding Corporation, Paris .....	0925405	924272 Ontario Inc., Ottawa .....	0924272	929387 Ontario Limited, Brampton	0929387
Swissotel Toronto International Airport Inc., Toronto .....	0929310	925315 Ontario Ltd., Guelph .....	0925315	1991-01-31	
Syncopated Productions Inc., Toronto .....	0928783	925316 Ontario Limited, Cambridge .....	0925316	Big Fifty Holdings Inc., Willowdale .....	0928391
T & Flea Trucking Ltd., Etobicoke .....	0929316	925317 Ontario Limited, Kitchener .....	0925317	Branfred Mananagement Inc., Toronto .....	0929459
The Business Solutions Library Inc., Kitchener .....	0929274	925402 Ontario Inc., Stoney Creek .....	0925402	Bromar Wood Recycling Inc., Brampton .....	0929446
Thistle Industries Inc., Barrie ....	0929338	925404 Ontario Inc., Grimsby ....	0925404	Cast/Schick Imports Inc., Concord .....	0929447
Total Network Solutions Inc., Kanata .....	0924267	926612 Ontario Inc., Campbellford .....	0926612	Colorip Pre-Press Inc., Toronto ...	0929451
Tradewinds Consulting Inc., Richmond Hill .....	0929321	928402 Ontario Limited, Windsor .	0928402	Comfort Rich Insulation Ltd., Kingston .....	0920621
Tri-Tech (Canada) Inc., Scarborough .....	0917955	928404 Ontario Ltd., Windsor ....	0928404	Cycad Image And Data Communications Ltd., Markham	0929494
Truostar Forming Ltd., Weston ...	0929322	928787 Ontario Limited, Downsview .....	0928787	Develfilm Corp., Toronto .....	0929495
TS Co. Limited, Scarborough ....	0929370	929265 Ontario Inc., Thornhill ...	0929265	EPH Tools & Machining Ltd., Lion's Head .....	0929460
Uzit Garments Inc., Mississauga ...	0929341	929271 Ontario Limited, Markham	0929271	Eternal Realty Corporation, Concord .....	0929486
V.A.P. Automotive Corporation, Brampton .....	0929294	929273 Ontario Inc., Scarborough	0929273	Industrial Capital Ltd., Oakville .....	0929443
V.C.E. Holdings Limited, Toronto	0929275	929278 Ontario Inc., Toronto ....	0929278	Jim McMurter General Contracting Ltd., Belleville ....	0929462
Victor Apa & Associates Inc., Concord .....	0929331	929282 Ontario Inc., Weston ....	0929282	John Patrick Construction Company Ltd., Toronto .....	0929487
Victoria Harbour Restaurant Ltd., Concord .....	0929377	929286 Ontario Limited, Markham .....	0929286	Mickey's Ribs Development Limited, Toronto .....	0929483
Vietnam Garden Restaurant Inc., Scarborough .....	0929358	929295 Ontario Limited, Scarborough .....	0929295	Mur-Van Manufacturing Ltd., Waterloo .....	0925297
Villalta Brothers Limited, Scarborough .....	0929365	929299 Ontario Inc., Toronto ....	0929299	Perry Hoo Foods Ltd., Ajax .....	0929455
Vino's Tire & Auto Centre Inc., Thornhill .....	0929300	929301 Ontario Limited, Oshawa ...	0929301	Plain & Simple Marketing & Specialty Items Inc., Toronto ...	0929493
Watt Carmichael Inc., Toronto ...	0929325	929302 Ontario Ltd., Markham ...	0929302	Red Leaf Real Estate Ltd., Mississauga .....	0929490
Wildman Construction Inc., London .....	0922079	929303 Ontario Ltd., Etobicoke ..	0929303	S.O.S. Office Systems Inc., Unionville .....	0929457
882366 Ontario Limited, Blind River .....	0882366	929304 Ontario Inc., Toronto ....	0929304	Three Coffins Productions Inc., Toronto .....	0929496
911317 Ontario Inc., Barrie .....	0911317	929305 Ontario Limited, Mississauga .....	0929305	V.F. Leger & Sons Ltd., Hagar ...	0929489
911318 Ontario Inc., Cookstown ..	0911318	929306 Ontario Inc., Waterloo ...	0929306	Windmill Woodworks Limited, Trenton .....	0929491
911846 Ontario Limited, Wallaceburg .....	0911846	929307 Ontario Limited, Woodbridge .....	0929307	919766 Ontario Inc., Burlington ..	0919766
911847 Ontario Limited, Wallaceburg .....	0911847	929308 Ontario Limited, Whitby ...	0929308	927268 Ontario Inc., Keewatin ...	0927268
917000 Ontario Ltd, Windsor ....	0917000	929309 Ontario Limited, Scarborough .....	0929309	929444 Ontario Inc., Toronto ....	0929444
917957 Ontario Inc., Ajax .....	0917957	929314 Ontario Inc., Toronto ....	0929314	929445 Ontario Inc., Toronto ....	0929445
919798 Ontario Ltd., Caledonia ...	0919798	929319 Ontario Inc., Toronto ....	0929319	929452 Ontario Limited, Toronto ...	0929452
919799 Ontario Limited, Burlington .....	0919799	929320 Ontario Limited, Don Mills .....	0929320	929454 Ontario Limited, Schumacher .....	0929454
920038 Ontario Inc., Sudbury ....	0920038	929326 Ontario Limited, Toronto ...	0929326	929456 Ontario Inc., Unionville ...	0929456
920039 Ontario Inc., Azilda .....	0920039	929327 Ontario Limited, Scarborough .....	0929327	929461 Ontario Inc., Oakville ....	0929461
920623 Ontario Inc., Kingston ...	0920623	929329 Ontario Inc, Etobicoke ...	0929329	929463 Ontario Limited, Thornhill .....	0929463
920624 Ontario Inc., Belleville ...	0920624	929330 Ontario Inc., Belleville ....	0929330	929484 Ontario Ltd., Richmond Hill .....	0929484
920625 Ontario Inc., Belleville ...	0920625	929336 Ontario Inc., Belleville ...	0929336	929485 Ontario Ltd., Richmond Hill .....	0929485
920626 Ontario Inc., Kingston ...	0920626	929340 Ontario Ltd., Toronto ....	0929340	929488 Ontario Ltd., Mississauga ...	0929488
922078 Ontario Limited, London ...	0922078	929343 Ontario Limited, Scarborough .....	0929343	929492 Ontario Limited, Rexdale ...	0929492
922084 Ontario Limited, Woodstock .....	0922084	929348 Ontario Inc., Toronto ....	0929348	929497 Ontario Inc., Toronto ....	0929497
924266 Ontario Inc., Ottawa .....	0924266	929350 Ontario Inc., Uxbridge ...	0929350	929498 Ontario Inc., Toronto ....	0929498
924268 Ontario Inc., Manotick ...	0924268	929352 Ontario Inc., Uxbridge ...	0929352		
924269 Ontario Limited, Ottawa ...	0924269	929357 Ontario Inc., Toronto ....	0929357		
		929359 Ontario Limited, St Catharines .....	0929359		
		929360 Ontario Limited, Burlington .....	0929360		
		929361 Ontario Inc., Perth .....	0929361		
		929362 Ontario Limited, Toronto ...	0929362		
		929366 Ontario Ltd., Toronto ....	0929366		
		929372 Ontario Inc., Toronto ....	0929372		

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

## Letters Patent of Incorporation Issued Émission de lettres constitutives

NOTICE IS HEREBY GIVEN that, under the *Corporations Act*, Letters Patent have been issued to: The date of incorporation precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'émission de lettres patentes en vertu de la *Loi sur les compagnies et associations* : la date de la constitution en personne morale précède la liste des compagnies visées.

Name of Corporation and Head Office Dénomination et siège social	Ontario Corp. No. Numéro matricule de l'Ontario
1990-12-18 GOA Non-Profit Homes Corporation, Mississauga	907828
Royal Canadian Legion Residences of Wyoming, Ontario, Wyoming	909168
1990-12-19 Willowbank Community Nursery School, Toronto	916340
1991-1-3 Marcus Garvey Group Homes, Toronto	920221
1991-1-15 Crime Stoppers of Oxford Inc., Woodstock	920288
Essex County Competitive Skaters Club, Windsor	923052
Experimental Aircraft Association Chapter #911, North Monaghan	913436
Rwandese Association of Ottawa/Association Rwandaise D'Ottawa, Gloucester	906091
1991-1-16 Blythwood Community Housing Inc., Toronto	913590
Fallingbrook Community Association/Association Communautaire Fallingbrook, Cumberland	923018
The Morris Unit Nurses' Care Fund of Niagara Falls, Niagara Falls	888632
1991-1-17 Departure Lake Recreational Committee, Smooth Rock Falls	920370
Grey-Bruce Humane Society, Holland	906176
Interact Children's Summer Arts Experience, Peterborough, Peterborough	916359

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Certificates of Amalgamation Certificats de fusion

NOTICE IS HEREBY GIVEN that, a certificate of amalgamation under the *Business Corporations Act*, 1982 has been endorsed: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription du certificat de fusion faite en vertu de la *Loi de 1982 sur les compagnies*. La date d'entrée en vigueur précède la liste des compagnies visées.

Name of Amalgamated Corporation: Amalgamating Corporations Dénomination sociale de la compagnie issue de la fusion : Compagnies qui fusionnent	Ontario Corp. No. Numéro de matricule de l'Ontario
1990-12-31 Kopas & Burritt Financial Agents Limited:	925007
Kopas & Burritt Financial Agents Limited, Kopas & Burritt Funding Incorporated, Kope Real Estate Limited	
1991-1-21 Dor-Al's Specialty Shoppe Limited:	920035
Dor-Al's Specialty Shoppe Limited, 472779 Ontario Limited	
Koslowsky Motors Ltd.:	924206
Koslowsky Motors Ltd., Seaway Nissan Limited	
Louis P. Quirion Limited:	920034
Louis P. Quirion Limited, Gizuk Holdings Limited	

Name of Amalgamated Corporation: Amalgamating Corporations Dénomination sociale de la compagnie issue de la fusion : Compagnies qui fusionnent	Ontario Corp. No. Numéro de matricule de l'Ontario
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1991-1-22 Rocalda Investments Inc.:	928329
Rocalda Investments Inc., Polyplast Company Limited	
1991-1-24 M T A Investments Limited:	928746
M T A Investments Limited, 554313 Ontario Limited	
1991-1-25 Kelsey-Hayes Canada Limited:	928782
Kelsey-Hayes Canada Holdings Corporation, Kelsey-Hayes Canada Limited	

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Corrected Certificates of Amalgamation Certificats de fusion corrigé

NOTICE IS HEREBY GIVEN that, a certificate of amalgamation under the *Business Corporations Act*, 1982 has been endorsed: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription, en vertu de la *Loi de 1982 sur les compagnies*, d'un certificat de fusion délivré aux compagnies intéressées dont la liste est précédée de la date d'entrée en vigueur.

Name of Amalgamated Corporation: Amalgamating Corporations Dénomination sociale de la compagnie issue de la fusion : Compagnies qui fusionnent	Ontario Corp. No. Numéro matricule de la compagnie en Ontario
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1990-3-31 Zierick Canada Corporation:	889990
747305 Ontario Limited, Zierick Canada Corporation	
1990-12-31 Trenline-Laramie Glass Products Incorporated:	926261
Trenline-Laramie Glass Products Incorporated, Falconer Canada Inc.	
1991-1-1 Robmar Investments Limited:	924698
Robmar Investments Limited, Berman Managements Limited	

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Amendments to Articles Modification de statuts

NOTICE IS HEREBY GIVEN that, under the *Business Corporations Act*, 1982 amendments to articles have been effected as follows: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES que les statuts des compagnies énumérées ci-dessous ont été modifiés en vertu de la *Loi de 1982 sur les compagnies*, comme suit. La date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation Dénomination sociale	Ontario Corporation Number Numéro matricule de l'Ontario
1990-12-7 786261 Ontario Ltd. (formerly Bambam Construction Ltd.)	786261
1990-12-19 Musculoskeletal Research Centre Inc.	759733

Name of Corporation Dénomination sociale	Ontario Corporation Number Numéro matricule de l'Ontario
1991-1-21	
Belsons Management Group Inc. (formerly 901779 Ontario Inc.)	901779
The Butcher Engineering Enterprises Limited	204483
The Flower Man (Niagara) Ltd. (formerly Bokma and Menger Constuction Limited)	331741
High & Dry Farms Ltd. (formerly High & Dry Elevator Ltd.)	381114
Panasiuk Golf Academy Ltd. (formerly 916955 Ontario Ltd.)	916955
Paramount Property Management Inc. (formerly Paramount Property Inc.)	874149
Plaza One GP Limited (formerly Quechee Developments Inc.)	811311
Salem Farm Equipment Products Limited (formerly 541431 Ontario Limited)	541431
Schwab Management Company Incorporated	298052
Welles Corporation Limited	608262
Will Insurance & Associates Ltd. (formerly 916937 Ontario Limited)	916937
1991-1-22	
Arctic Star Refrigerated Express Ltd.	834317
Covey Foods Ltd.	304061
Domco Foodservices Limited	434012
H & A Vending Inc. (formerly 898550 Ontario Ltd.)	898550
J. R. Menard Limited	81120
James S. Death Limited	759451
Killdeer Management Inc. (formerly Killdeere Management Inc.)	924639
L. Viger Holdings Limited	251116
Locations North Realty Inc. (formerly 613805 Ontario Inc.)	613805
Longset Laboratories Inc. (formerly Northcorp Resources Limited)	527708
Mendelssohn Customs Brokers Ltd. (formerly Mendelssohn Customs Brokerage Ltd.)	918055
Metrus Development Inc. (formerly Metrus Management-Land Developement Inc.)	904756
NRB Inc.	518530
Patrick & Enright Construction Ltd. (formerly Patrick-Enright Construction Ltd.)	406774
Prufrock Interests Inc. (formerly 703480 Ontario Inc.)	703480
S.K.L.M. Holdings Inc. (formerly 899446 Ontario Limited)	899446
Sportswear Apparel Group Inc. (formerly 924702 Ontario Inc.)	924702
Timber Lakes (Kingston) Company Ltd. (formerly Timber Lakes (Kingston) Co. Limited)	904373
Tlaquepaque Inc. (formerly Tlaque Paque Inc.)	879833
Vickery Electric Contracting Limited	109190
Vista Strategic Information Management Inc.	871503
West Vaughan Meats Ltd. (formerly West Vaughan Construction Limited)	901021
William J. Mollard Investments Ltd.	849702
Windsor Excimer Corporation (formerly Windsor Eximer Corporation)	916973
876749 Ontario Inc.	876749
904750 Ontario Limited	904750
1991-1-23	
A. Koornneef & Sons Limited	103934
Berridge Lewinberg Greenberg Ltd.	678643
The Best Shoe Co. Limited	
Les Chaussures Best Ltee (formerly The Best Shoe Co. Limited)	412529
Blue Sky Gardening Ltd. (formerly J & M Tile Contracting Ltd.)	876424
Boge Interests Inc. (formerly 703481 Ontario Inc.)	703481
Bris-Bar Life Insurance Agency Ltd.	403182
City-Wide Insurance Ltd.	450688
Dominion Atlantic Technologies Inc. (formerly KBD Investments Inc.)	845827
Expedite Plus Inc. (formerly 869135 Ontario Limited)	869135
Fairview Farms Corp. (formerly Grand Union Markets Ltd.)	920389
Georbon Transportation Services Inc.	569136
Great Bear Wear Inc. (formerly 719450 Ontario Inc.)	719450

Name of Corporation Dénomination sociale	Ontario Corporation Number Numéro matricule de l'Ontario
Iliopoulos Holdings Limited	921017
J. W. Gross & Sons Ltd.	344799
Mary-Marg Shoppe Limited	98181
Maxim Technologies Inc. (formerly Maxim Alarms (Eastern) Ltd.)	799461
Nardone Investments Limited	230075
Niagara Industrial Supplies Limited	051398
The Real Canadian Superstore Ltd. (formerly Can-Dania Importing Co. Ltd.)	923057
Ridgemoor Management Corporation (formerly 879625 Ontario Limited)	879625
Sheehan & Rosie Limited	134517
Skarratt Ltd. (formerly Wm. S. Skarratt Limited)	394865
Sterling Air/Express Inc. (formerly Skyway Management Group Limited)	660851
Sugar Daddy's Cafe Inc. (formerly 919425 Ontario Limited)	919425
W. Geneau Excavating and Septic Cleaning System Ltd. (formerly Chretien and Geneau Excavating and Septic Cleaning System Ltd.)	823046
34 Adelaide Street South Holdings Inc. (formerly 911733 Ontario Limited)	911733
353903 Ontario Ltd. (formerly Steeplejack Services (Sarnia) Ltd.)	353903
688038 Ontario Inc. (formerly Home To Home Corporate Relocation Inc.)	688038
763190 Ontario Inc.	763190
802173 Ontario Inc.	802173
886964 Ontario Limited	886964
920231 Ontario Inc. (formerly Richard Kadray's Home Furnishings Limited)	920231
924819 Ontario Ltd.	924819
1991-1-24	
A.R.T. Concrete Forming (West Lorne) Ltd.	419311
Barclays McConnell Limited (formerly E. J. McConnell & Associates Limited)	725573
Bearbrook Holdings Inc.	561012
Bold Graphic Communication Ltd. (formerly Bold Print Graphic Design Ltd.)	859064
Brental Development Corporation	670636
Canship (GP) Inc. (formerly 862497 Ontario Limited)	862497
Capital Supermarkets (1988) Limited	769486
Carey Murray Roofing Limited	608750
Cleaners Plus Inc.	754472
Convent Glen Realty Ltd.	561858
D & R Landscapes Ltd.	661475
Dalton Films Limited (formerly Christopher Dalton Productions Ltd.)	357945
Dieleman Farms Limited	100151
Duprop Investments Limited	153513
Four Star Dairy Limited (formerly 689825 Ontario Limited)	689825
Irving-Charles Supermarkets Limited	134444
J.C.P. Management Ltd.	879934
K-International Group Limited (formerly Marleine Kay International Ltd.)	920574
The Last Minute Travel Services Inc. (formerly Lakefork Estates Inc.)	864820
Leslie Plaza Management Inc. (formerly 817905 Ontario Inc.)	817905
Lexox Property Management Inc. (formerly Xox Management Inc.)	752860
Mohawk Data Sciences-Canada, Limited	762677
PD Pizza Systems Ltd. (formerly IFM Food Management Ltd.)	893991
Ratcliff Airways Ltd.	621917
Right Associates (Ontario) Ltd. (formerly M.R.A. Career Transitions Inc.)	579338
Right Associates (Toronto) Ltd. (formerly T. Szwec & Associates Inc.)	645043
Suit Yourself Fashions Ltd.	859069
Town & Country Farms Inc. (formerly 653319 Ontario Inc.)	653319

Name of Corporation Dénomination sociale	Ontario Corporation Number Numéro matricule de l'Ontario
Towne Square (Ocoee) Ontario Inc. (formerly 911185 Ontario Inc.)	911185
Valotte Aesthetics & Beauty Supplies Inc.	685608
W. Peter Harris Pharmacy Ltd.	420191
Yekol Ontario Inc. (formerly 924690 Ontario Inc.)	924690
235539 Ontario Inc. (formerly Concord Food Centre Limited)	235539
896468 Ontario Limited	896468
1991-1-25	
Blackhall Holdings Inc.	923676
Callahan's Beach House Inc.	728251
Contrans Corp.	523659
Corsan Insurance Services Inc.	582586
Gandy Associates Inc.	762844
Grant Forest Products Corp.	925830
Kearney-National (Canada) Limited	32765
Micron Mechanical Ltd.	799672
Morris Young Associates Inc.	817712
Opinac Energy Corporation	521976
Paris Properties Limited	285704
Tecvalco Ltd.	440102
TIW Systems Limited	334479
Trinity Millenium Ltd.	541743
484469 Ontario Limited	484469
733772 Ontario Limited	733772
764396 Ontario Inc.	764396
799168 Ontario Ltd.	799168
1991-1-28	
Arvak Limited	806426
Beaver Foods Limited	719337
Camp International Limited	38096
Canus Camp Services Limited	383363
Elvira Andres Holdings Corporation	520316
The Equipment Parlour Inc.	572946
Frontier Equipment Company Limited	84525
Lebro Management Limited	213671
Mother Parker's Foods Limited	89172
N. A. Timmins Limited	543516
Nova Services Inc.	859375
Nutricare Limited	438935
Ottawa Parkdale Medical Centre Limited	152125
Paper Peddlers Inc.	901593
Pittway Corporation of Canada Ltd.	404268
Summit Food Distributors Inc.	776517
Underwriting Data Services Inc.	438314
Vukelic Holdings Inc.	893033
Wildon Realities Limited	106976
913175 Ontario Limited	913175
928349 Ontario Inc.	928349
1991-1-29	
Data Card Canada Inc.	551377
E.C.G. Consultants Limited	211010
Forrest & Associates Insurance Agencies Limited	907765
H. Sustronk & Associates (1980) Limited	449460
JCTV Productions Ltd.	652170
Slaight Communications Inc.	418614
Strong Equipment Corporation	
Corporation D'Equipelement Strong	811911
Sustronk & Associates Limited	434851
765677 Ontario Limited	765677
1991-1-31	
Caird Holmes Management Limited	585944

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Articles of Revival Clauses de Reconstitution

NOTICE IS HEREBY GIVEN that, certificates of revival under the *Business Corporations Act, 1982* have been endorsed reviving the

following corporations: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription, en vertu de la *Loi de 1982 sur les compagnies*, du certificat de reconstitution délivré en faveur des compagnies dont la liste, précédée de la date d'entrée en vigueur, figure ci-dessous :

Name of Corporation Dénomination sociale	Ontario Corp. No. Numéro matricule de l'Ontario
1991-1-23	
649015 Ontario Ltd.	649015
	DIANE S. NAGEL, Director, Companies Branch Directrice, Direction des compagnies
7/91	

## Corrected Certificate of Amendments to Articles Certificat de modifications de status corrigé

NOTICE IS HEREBY GIVEN that, under the *Business Corporations Act, 1982* amendments to articles have been effected as follows: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES qu'en vertu de la *Loi de 1982 sur les compagnies* les status ont été modifiés comme suit : la date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation Dénomination sociale :	Ontario Corporation Number Numéro matricule de la compagnie en Ontario
1989-6-28	
Stewart Lake Resources Inc.	
Resources de Lac Stewart Inc.	99531
1990-9-11	
Blazecka's Greenhouses Inc.	609301
1990-9-24	
Westwin Drugs Limited	339971
	DIANE S. NAGEL, Director, Companies Branch Directrice, Direction des compagnies
7/91	

## Supplementary Letters Patent Issued Émission de Lettres Patentes Supplémentaires

NOTICE IS HEREBY GIVEN that under, the *Corporations Act*, Supplementary Letters Patent have been issued to: The effective date precedes the corporation Listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'émission de lettres patentes supplémentaires conforme à la *Loi sur les compagnies et associations* : la date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation Dénomination et siège sociale	Ontario Corp. No. Numéro matricule de l'Ontario
1990-12-21	
Sudbury Y.W.C.A. Brookwood Apartments	847115
1991-1-4	
Kingsville District High School Gymnasium Committee Inc.	866220
1991-1-7	
Guelph Non-Profit Housing Corporation	778103
1991-1-10	
Topcliff Community Childcare (formerly Yorkwoods Community Shiftworkers Day Care Association)	590140

Name of Corporation Dénomination et siège sociale	Ontario Corp. No. Numéro matricule de l'Ontario
1991-1-14 Town of Simcoe Non-Profit Housing Corporation . . . . .	576498
Walmer Road Baptist Church Day Care Inc. (formerly/ anciennement Walmer Road Baptist Church Day Nursery Inc.) . . . . .	361608
1991-1-18 Hungarian Festival of The Arts (Toronto) . . . . .	907870
DIANE S. NAGEL, Director, Companies Branch Directrice, Direction des compagnies	
7/91	

## Certificates of Dissolution Certificats de dissolution

NOTICE IS HEREBY GIVEN that a certificate of dissolution under the *Business Corporations Act, 1982* has been endorsed: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LA PRÉSENTE que, conformément à la *Loi de 1982 sur les compagnies*, un certificat de dissolution a été inscrit pour les compagnies suivantes : la date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation Nom de la compagnie	Ontario Corp. No. Comp. de l'Ontario n°
1991-1-25 Alsez Group Ltd. . . . .	0515523
Bronte Creek Productions Limited . . . . .	0747111
Dacare Industries Inc. . . . .	0705032
1991-1-28 672435 Ontario Inc. . . . .	0672435
720368 Ontario Inc. . . . .	0720368
728953 Ontario Inc. . . . .	0728953
1991-1-29 Squadron Enterprises Limited . . . . .	0286799
410823 Ontario Limited . . . . .	0410823
1991-1-30 Addison Investments Limited . . . . .	0276006
143652 Ontario Limited . . . . .	0143652

## Notice of Default in Complying with the Corporations Tax Act Avis d'inobservation de la loi sur les corporations

The Director has been notified by the Minister of Revenue that the following corporations are in default in complying with the *Corporations Tax Act*.

NOTICE IS HEREBY GIVEN under subsection 240 (1) of the *Business Corporations Act, 1982* that unless the corporations listed hereunder comply with the requirements of the *Corporations Tax Act* within 90 days of this notice, orders will be made dissolving the defaulting corporations. All enquiries concerning this notice are to be directed to Corporations Tax Branch, Ministry of Revenue, 33 King Street West, Oshawa, Ontario, L1H 8H6.

Le ministre du Revenu a informé l'administrateur unique que les compagnies suivantes n'avaient pas respecté la Loi sur l'imposition des personnes morales.

AVIS EST DONNÉ PAR LA PRÉSENTE que, conformément au paragraphe 240 (1) de la *Loi de 1982 sur les compagnies*, si les compagnies citées ci-dessous ne se conforment pas aux prescriptions énoncées par la Loi sur l'imposition des personnes morales dans un délai de 90 jours suivant la réception du présent avis, lesdites compagnies se verront dissoutes par décision. Pour tout renseignement relatif au présent avis, veuillez vous adresser à la Direction de l'imposition des compagnies, ministère du Revenu, 33, rue King ouest, Oshawa (Ontario) L1H 8H6.

Name of Corporation Nom de la compagnie	Ontario Corporation Number Numéro matricule de la compagnie en Ontario	Name of Corporation Nom de la compagnie	Ontario Corporation Number Numéro matricule de la compagnie en Ontario	Name of Corporation Nom de la compagnie	Ontario Corporation Number Numéro matricule de la compagnie en Ontario
A To Z Import Export Limited . . . .	610601	A-Jac Demolition (London) Ltd. . .	464475	Alanna V (Oakville) Ltd. . . . .	653169
A. & G. Paint And Wallpaper Limited . . . . .	253177	Aalice International Ltd. . . . .	575582	Alanna V (Pointe Claire) Ltd. . . . .	653175
A. J. Campbell Contractors Ltd. . . .	542570	Abusul Data Services Limited . . . .	436162	Alanna V (Scarborough) Ltd. . . . .	651997
A. K. S. Janitorial Services Ltd. . . .	480448	Action Bankruptcy Sales Ltd. . . . .	697748	Alanna V (Windsor) Ltd. . . . .	652206
		Alanna V (Brampton) Ltd. . . . .	653166	Alanna V Bloor Street Ltd. . . . .	651998

Name of Corporation Nom de la compagnie	Ontario Corp. No. Comp. de l'Ontario n°
1991-2-1 The Ontario School of Ballet and Related Arts Ltd. . . . .	0420222
692241 Ontario Inc. . . . .	0692241
DIANE S. NAGEL, Director, Companies Branch Directrice, Direction des compagnies	
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## Decisions on Applications for Audit Exemption Décisions en matière de requête d'exemption

NOTICE IS HEREBY GIVEN that the Director has received applications for exemption from certain requirements of Part XII of the *Business Corporations Act, 1982* from the corporations named hereunder and has rendered her decision: Exemptions granted.

AVIS EST DONNÉ PAR LES PRÉSENTES que sur réception des requêtes formées par les compagnies mentionnées ci-dessous en vue d'obtenir l'exonération de l'application de certaines dispositions prescrites à la Partie XII de la *Loi de 1982 sur les compagnies*, la directrice s'est prononcée favorablement. Par conséquent, la dispense est accordée.

Name of Corporation Dénomination sociale	Ontario Corp. No. Numéro matricule de l'Ontario
1991-1-21 Cooperheat of Canada Limited . . . . .	272565
Schwitzer Manufacturing Canada Inc. . . . .	827666
1991-1-22 Ajay-Dorcy Canada Ltd. . . . .	751731
Reuters Canada Limited Reuters Canada Limitee . . . . .	751737
Seynoma Investments Inc. . . . .	677023
Top Leasing Limited . . . . .	706145
DIANE S. NAGEL, Director, Companies Branch Directrice, Direction des compagnies	
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Ontario		Ontario		Ontario	
Name of Corporation	Corporation Number	Name of Corporation	Corporation Number	Name of Corporation	Corporation Number
Nom de la compagnie	Numéro matricule de la compagnie en Ontario	Nom de la compagnie	Numéro matricule de la compagnie en Ontario	Nom de la compagnie	Numéro matricule de la compagnie en Ontario
Algoma Silver Lead Mines Inc. ....	469850	Danart Construction Ltd. ....	702249	House Of Wilson Ross Ltd. ....	700935
All Eastern Drive-In's Limited .....	109463	Danini Creation Ltd. ....	405991	Howter Schools Limited .....	425961
Alliance Capital Corp. ....	231386	Dave's Cycle Of Burlington Ltd. ....	615670	Imajeation Limited .....	488210
Alongor Ltd. ....	698647	David Nolan Enterprises Ltd. ....	347889	Imbeault Holdings Ltd. ....	652757
Ancajo Construction Limited .....	702747	Dearcorp Investments Ltd. ....	489441	Incorporated Enterprises Limited .....	527351
Ancott Corporation .....	651981	Diarmid Limited .....	407883	Indent Investments Limited .....	470236
Angelini Bros. Ltd. ....	296265	Dimension Ii Building Developments Ltd. ....	579866	Info-Print Ltd. ....	530619
Angelo's Realty Ltd. ....	527376	Diversified Detail Services Limited .....	319086	Innovation Electronics Inc. ....	503034
Another Rainbow Publishing Company Ltd. ....	449573	Don Martin Realty Limited .....	370500	Inpasco - Industrial Power Automation Systems Ltd. ....	697108
Anthony Delorme Ltd. ....	255631	Dunar Investments Limited .....	224528	Intercafrica Trading Ltd. ....	544656
Ar-Mass Jewellery Manufacturing Incorporated .....	350954	Duvin Inc. ....	374051	International Business Products Ltd. ....	697567
Art's Amusements (1987) Ltd. ....	698273	E & M Pease Co. Ltd. ....	373814	J. C. Gilbert & Sons Limited .....	409974
Artek Sewing Machines Limited .....	655683	E. Fiedler Holdings Ltd. ....	385436	J. C. Snowden Designs Inc. ....	616009
Ash River Holdings Limited .....	416355	E-Tools Corp. ....	741073	J. Lapointe And Sons (Hawkesbury) Limited .....	146783
ASP Holdings Limited .....	544246	Earl Grant Automotive Ltd. ....	505063	J.A.K. Kustom Kountertops Limited .....	699205
Astina Properties Limited .....	448013	East Lynn Holdings Limited .....	283597	J.W.E. Consultants Inc. ....	446209
Atlantic Seafood Purveyors Ltd. ....	656988	Eastern Carpet Wholesale Company Ltd. ....	617556	James MacMurray Enterprises Limited .....	346324
Atomota Inc. ....	485910	Echo Lodge Corporation Limited ..	147216	Jen-Bet Management Services Inc. ....	373488
Audioscope Inc. ....	654530	Edgewood Acres Limited .....	067998	Jewel Entertainment Corp. ....	700613
Ault's Electric Ltd. ....	699954	Elora-Quoy Inc. ....	658479	Joanne J. Vergeer Corporation ....	404922
Avalanche Automobile Corporation .....	651261	Emery Tire Service Ltd. ....	406673	John & Judy Shoppe Ltd. ....	562622
Avon Art And Antiques Of Stratford Ltd. ....	469984	Endigon Contractors Limited .....	700066	John Ellision Sales Limited .....	352451
Balchip Manufacturing Inc. ....	698374	Esline Management Corporation ....	405859	John Rossiter Race Cars Inc. ....	698255
Barr Roofing & Sheet Metal Ltd. ....	471767	Excelcare Services Inc. ....	468797	Jorella Holdings Limited .....	743249
Bauwen Inc. ....	709354	Findlay Equipment Inc. ....	629937	Kelsa Ophthalmic Instruments Of Canada Inc. ....	704263
Beaverton Management & Maintenance Inc. ....	726145	Flag Carton Corporation Limited ..	300232	Kenji Corporation Inc. ....	302262
Black Market Furniture Inc. ....	608321	Foamlite Rafts & Docks Limited ...	124519	Kennek Corporation .....	696217
Blackcountry Pet Products Ltd. ....	704073	Frank Selzer Store Fixture Installation Ltd. ....	484230	Kenneth Benko Insurance Agencies Ltd. ....	541107
BLD Medical Inc. ....	705771	Futurevision Investments Limited .....	698066	Kenogami Apartments And Clean-Net Laundry Ltd. ....	386265
Body-Master Collision Limited .....	578222	G. Couturier Eavestroughing Limited .....	366919	Kerton Holdings Inc. ....	709400
Brant Mayes Carpentry Inc. ....	691751	G. McRoberts Holdings Inc. ....	705182	Kingsford Packaging Automation Inc. ....	692791
Burlington Holistic Centre Inc. ....	603457	G.E. Smith Financial Services Limited .....	501256	Kitchen Craftsmen Of Muskoka Ltd. ....	545680
Business Telephone Systems Inc. ....	457562	Gambero Rosso Restaurant Limited .....	657034	Koyle Shoes Limited .....	285732
C W S Electric Limited .....	440510	Gary Magwood's Raceequip Limited .....	220880	Kusotray Inc. ....	575819
C.P. Trailer Sales Limited .....	306823	Gencan Financial Ltd. ....	569291	L And Y Travel Limited .....	283283
C&M Apts Ltd. ....	460307	Georgina Refrigeration & Appliance Service Limited .....	704165	L S Building Services Ltd. ....	689556
Caledonia Service Station Inc. ....	378151	Gilyne Paint And Wallcovering Ltd. ....	432054	La Torre Del Formaggio Ltd. ....	644465
Cancor Properties Limited .....	641962	Glenn Cymbalisty Drugs Ltd. ....	539375	Labdene Limited .....	703837
Candor Holdings Limited .....	213100	Glenview Landscaping Limited ....	417734	Lall Interiors Inc. ....	302752
Cargor Holdings Limited .....	367975	Greenstreet's North Limited .....	537246	Larocque Brothers Limited .....	308514
Carmens Fine Food Ltd. ....	704272	Guess Who Manufacturers Inc. ....	578674	Laser Versatility Incorporated ....	704279
Cedarbrook Distributing Inc. ....	550051	Gus Cotroneo Service Station Limited .....	263415	Legal Services Centre Inc. ....	690720
Celestial Yachting Corporation .....	684885	H & D Process Automation Limited .....	617001	Lindstone Properties Inc. ....	467938
Chinka International Inc. ....	539569	H.C. Formatics Limited .....	611676	Lor-Kon Enterprises Ltd. ....	303358
Churchill Coiffures Ltd. ....	612085	H.C. Wood Craft Ltd. ....	353753	M.D.O. Holdings Limited .....	466359
Clarkson Interiors (1987) Limited .....	699965	H.H.T. Investments Inc. ....	723358	M.V. Investors Incorporated .....	441604
Claxton Mechanical Systems Limited .....	620981	Har-Gal Investments Ltd. ....	466939	Madeira Bricklayers Ltd. ....	703094
Cobblestone Corporation .....	500067	Harkema's Horse & Hound Inc. ....	697876	Magna Construction Ltd. ....	670673
Collingwood Boat Works Inc. ....	638335	Harper-Dow Canada Inc. ....	704307	Magnet Industries Inc. ....	704645
Computer Masters Inc. ....	750047	Hawthorne Land Corporation .....	506159	Magnus Rex Incorporated .....	318888
Coolafancy Investments Inc. ....	733946	Heavy Equipment Sales Company Limited .....	702678	Malibu Electrical Inc. ....	504062
Countex Properties Inc. ....	476459	HFI Incorporated .....	469399	Mall Media Marketing Inc. ....	689326
Creation Manon Salois Inc. ....	724569	Homeaction Network Ltd. ....	698427	Marcomme Home Improvement Ltd. ....	561499
D'Agostino Industrial Catering Limited .....	697473	Horizon's Nursing Care And Allied Services Ltd. ....	701166	Margeaux Y. Valesque Fashions Inc. ....	648001
				Modes Margeaux Y. Valesque Inc. ....	
				Mausi Corporation Inc. ....	697930
				Maxon Trading Inc. ....	542352

Name of Corporation	Ontario Corporation Number	Name of Corporation	Ontario Corporation Number	Name of Corporation	Ontario Corporation Number
Nom de la compagnie	Numéro matricule de la compagnie en Ontario	Nom de la compagnie	Numéro matricule de la compagnie en Ontario	Nom de la compagnie	Numéro matricule de la compagnie en Ontario
McBean Jaguar & Sport Inc. ....	537019	Regal Frozen Food Ltd. ....	699434	U' Fix N Save Repair Centre Limited .....	509299
McIntosh Appearance Centres Inc. ....	698551	Reliable Packaging Inc. ....	652984	Utility Housewares Inc. ....	505822
McNamee Electrical Signs And Sign Maintenance Ltd. ....	700789	Remco Airconditioning Ltd. ....	318876	V R Excavating Ltd .....	696289
Mekuff Inc. ....	707114	Rendeb Developments Limited .....	474512	V. And L. Pangilinan Investments Limited .....	441815
Methodware Inc. ....	639752	Richard Dupont Leasing Inc. ....	519419	Vansco Limited .....	367918
Meyers Holdings Inc. ....	655360	Risack Developments Inc. ....	331953	Venture Partners Inc. ....	558960
Michael Appleby Holdings Limited .....	576925	Rodgers Marketing Inc. ....	536151	Vicraft Needlepoint Inc. ....	472506
Michael Blake Read/Philippa M. Lee And Associates Ltd. ....	396880	Ronjo Limited .....	350127	Video Marquee Inc. ....	576780
Midere Incorporated .....	477069	Rourke River Gallery Inc. ....	577336	Video Nite Limited .....	697360
Mirpourian Brothers Import & Export Ltd. ....	601764	Rubita's Hairdressing Limited ....	332367	Von Rosenbach Service Corporation .....	376102
Monty Construction Limited .....	252591	Rue De France Inc. ....	505266	Vonter Incorporated .....	468432
Morgan's Printing And Promotions Inc. ....	580158	Rula Thumb Enterprises Limited ..	650414	W.D. Textile MacHines Ltd. ....	699277
Mourad Importing Inc. ....	696275	Ruskview Holdings Inc. ....	698355	Waite-Keeler-White Incorporated ..	644368
Mr. Bishop's Roadhouse & Riverside Cafe Ltd. ....	689367	Russell Stanley (Sault) Limited ....	319517	Walbow Holdings Limited .....	232177
Multi-Guard Auto Truck Rustproofing Inc. ....	409603	S. & D. Pigment Products Inc. ....	578192	WAW Transport Corp. ....	690798
Multiple Construction (Toronto) Limited .....	127555	S.J. Barrett Canada Ltd. ....	650601	West Slope Estates Limited .....	697377
Najube Management Ltd. ....	496585	Safe Emergency Supply Ltd. ....	657062	Whiteline Investments Limited ....	283424
National-Us Financial Corp .....	652589	Saginaw Investments Limited .....	242474	Whitley, Smith Limited .....	699914
Northridge Medical Services Ltd. ..	673717	Samic Jewellers Inc. ....	570603	Willcler Investments Limited ....	704309
Nutricell Incorporated .....	403624	Sanrichard Group Inc. ....	469549	Willi Kurz Brazilian Veneers And Lumber Inc. ....	541889
Oak Bannister Limited .....	615357	Seaway Fish & Meat Market Limited .....	342026	Williams-Peddie Productions Inc. ..	576668
Offset Film Systems Limited .....	269798	Selcorp Investments Inc. ....	699577	Windsor Commodity Limited ....	712236
Orbit Gold And Copper Mines Of Canada Limited .....	067934	Serv-System Limited .....	253503	Winsa Realty Limited .....	301363
Oriole-Bar Investments Ltd. ....	694874	Sheldon Brite Inc. ....	705350	Witex Trading Inc. ....	718989
Orion Marketing Inc. ....	505060	Sjolin Consulting Services Ltd. ....	723247	WJM Consultants Inc. ....	698506
Oscar's Watch Clinic Limited .....	209208	Smiland Farms Limited .....	222052	Wolverine Brass Company Limited ..	016466
P. Raviele Limited .....	425816	Snowberry Management Corporation	704983	Woodstock Retail Paint Trading Company Ltd. ....	700482
P.L.B. Landscaping Ltd. ....	614284	Sonath Foods Inc. ....	685555	Yustin Construction Limited .....	508462
Pantry King Kitchen Inc. ....	611607	Stan & Ray Gagnon Contracting Ltd. ....	377459	Zan's Hair Salon Inc. ....	579716
Paradise Heating & Air Conditioning Ltd. ....	405969	Stan Klees Limited .....	200656	Zapf Development Corp. ....	703071
Paul Church Limited .....	330250	Steriglen Manufacturing Inc. ....	614023	Zeisler & Silverstein Holdings Limited .....	700209
Paul So Cabinet & Woodworking Ltd. ....	704259	Steven Kirshenblatt Associates Incorporated .....	360959	Zemindar Investments Ltd. ....	436787
Pecon Aluminium Ltd. ....	258177	Studio Shoes Ltd. ....	704030	114009 Ontario Limited .....	114009
Peedi Investments Limited .....	262977	Summit Cleaning Services Inc. ....	561473	20/20 Management Limited .....	656453
Peko/Martin Inc. ....	541290	Supreme Fence Limited .....	239337	226025 Farms Limited .....	226025
Pentacle Capital Corp. ....	700306	T.A.I. Productions Limited .....	518381	231800 Ontario Limited .....	231800
Persignia Inc. ....	519092	T.C.L. Development & Management Ltd. ....	124336	232068 Ontario Limited .....	232068
Photo Hut Ltd. ....	288210	T.M. Mortgage Corporation .....	702397	25Th Century Fox Corp. ....	648554
Port Carling Boat Works Inc. ....	699983	Tanline Inc. ....	703014	287355 Ontario Limited .....	287355
Poton G.B. Inc. ....	620575	Tapwell Enterprises Limited .....	697186	301073 Ontario Limited .....	301073
Primary S.B.D.C. Limited .....	576626	Target Airfreight Canada Inc. ....	644835	3284 Yonge Street G.P. Inc. ....	697528
Prime Time Promotions Inc. ....	653370	TD Motor Sales & Service Inc. ....	466580	335582 Ontario Ltd. ....	335582
Private Properties Marketing Services Inc. ....	703509	Tekserve Incorporated .....	706578	340952 Ontario Inc. ....	340952
Pro-En-Co Project Engineering Co-Ordination Limited .....	542446	Telford & Craddock Co. Limited ..	207560	391324 Ontario Limited .....	391324
Pronto Courier Services (Ottawa) Limited .....	439961	The McCoy Groupe Inc. ....	705312	404565 Ontario Limited .....	404565
Prospects Incorporated .....	657074	The Private Housing Market Inc. ..	690778	405410 Ontario Limited .....	405410
Pull-A-Cork Inc. ....	702156	The Water Factory Inc. ....	650354	405456 Ontario Limited .....	405456
Quadra Marketing Inc. ....	656058	Thermalseal Inc. ....	381754	411172 Ontario Limited .....	411172
Quadronics Incorporated .....	515145	Third Generation Holdings, Inc. ....	667626	437038 Ontario Limited .....	437038
R. Reid Real Estate (Brockville) Ltd. ....	548170	Thousand Island Dressing Co. Ltd. ....	329914	437545 Ontario Inc. ....	437545
Rafael & Associates Incorporated ..	697545	TJI Business Consulting Inc. ....	700240	437585 Ontario Ltd. ....	437585
Raptech Controls Inc. ....	649956	Tomar Renovations Inc. ....	702020	439376 Ontario Inc. ....	439376
Ray's Bakery Ltd. ....	299864	Top Class Renovations Inc. ....	720134	441152 Ontario Inc. ....	441152
		Total Transportation & Warehouse Services Ltd. ....	697438	445158 Ontario Inc. ....	445158
		Trent Valley Sport And Recreation Limited .....	467340	457101 Ontario Ltd. ....	457101
		Tri-Group Insurance Agencies Inc. ....	610548	460878 Ontario Limited .....	460878
		True North Management Inc. ....	537248	463951 Ontario Limited .....	463951
		TVA Financial Services Ltd. ....	701518	466555 Ontario Limited .....	466555
		Tyowernh Arts And Publishing Limited .....	437930	466623 Ontario Limited .....	466623
		U.S. Marchand Real Estate Ltd. ....	697929	466827 Ontario Limited .....	466827
				468439 Ontario Limited .....	468439
				468611 Ontario Inc. ....	468611
				469548 Ontario Inc. ....	469548

Name of Corporation	Ontario Corporation Number	Name of Corporation	Ontario Corporation Number	Name of Corporation	Ontario Corporation Number
Nom de la compagnie	Numéro matricule de la compagnie en Ontario	Nom de la compagnie	Numéro matricule de la compagnie en Ontario	Nom de la compagnie	Numéro matricule de la compagnie en Ontario
472275 Ontario Ltd. ....	472275	639754 Ontario Limited .....	639754	698768 Ontario Ltd. ....	698768
472310 Ontario Inc. ....	472310	640010 Ontario Inc. ....	640010	698791 Ontario Inc. ....	698791
477367 Ontario Inc. ....	477367	640728 Ontario Inc. ....	640728	699826 Ontario Limited .....	699826
484813 Ontario Limited .....	484813	646864 Ontario Limited .....	646864	699837 Ontario Inc. ....	699837
487354 Ontario Incorporated .....	487354	648587 Ontario Inc. ....	648587	699838 Ontario Inc. ....	699838
493961 Ontario Ltd. ....	493961	650705 Ontario Limited .....	650705	699904 Ontario Limited .....	699904
497158 Ontario Ltd. ....	497158	651105 Ontario Limited .....	651105	700257 Ontario Ltd. ....	700257
503036 Ontario Limited .....	503036	651227 Ontario Inc. ....	651227	700259 Ontario Limited .....	700259
504312 Ontario Limited .....	504312	652229 Ontario Inc. ....	652229	700839 Ontario Inc. ....	700839
506022 Ontario Inc. ....	506022	652694 Ontario Limited .....	652694	700973 Ontario Limited .....	700973
514015 Ontario Limited .....	514015	654452 Ontario Limited .....	654452	700993 Ontario Ltd. ....	700993
519214 Ontario Limited .....	519214	654551 Ontario Limited .....	654551	701164 Ontario Inc. ....	701164
519576 Ontario Limited .....	519576	656074 Ontario Limited .....	656074	701407 Ontario Limited .....	701407
521217 Ontario Limited .....	521217	656556 Ontario Limited .....	656556	701409 Ontario Limited .....	701409
523387 Ontario Limited .....	523387	658209 Ontario Inc. ....	658209	701415 Ontario Limited .....	701415
531941 Ontario Inc. ....	531941	659931 Ontario Ltd. ....	659931	701417 Ontario Limited .....	701417
535657 Ontario Limited .....	535657	665304 Ontario Limited .....	665304	701426 Ontario Limited .....	701426
536888 Ontario Limited .....	536888	667779 Ontario Ltd. ....	667779	701428 Ontario Limited .....	701428
538639 Ontario Limited .....	538639	671656 Ontario Limited .....	671656	701429 Ontario Limited .....	701429
541036 Ontario Inc. ....	541036	681094 Ontario Inc. ....	681094	701431 Ontario Limited .....	701431
541951 Ontario Limited .....	541951	687229 Ontario Ltd. ....	687229	701432 Ontario Limited .....	701432
542373 Ontario Limited .....	542373	688962 Ontario Inc. ....	688962	702118 Ontario Inc. ....	702118
542374 Ontario Limited .....	542374	689370 Ontario Limited .....	689370	702145 Ontario Inc. ....	702145
544895 Ontario Inc. ....	544895	690707 Ontario Inc. ....	690707	702262 Ontario Limited .....	702262
545494 Ontario Inc. ....	545494	692761 Ontario Inc. ....	692761	702614 Ontario Inc. ....	702614
548017 Ontario Limited .....	548017	694134 Ontario Inc. ....	694134	703095 Ontario Inc. ....	703095
559662 Ontario Limited .....	559662	694192 Ontario Inc. ....	694192	703203 Ontario Inc. ....	703203
576581 Ontario Limited .....	576581	696367 Ontario Limited .....	696367	704395 Ontario Limited .....	704395
576732 Ontario Limited .....	576732	696583 Ontario Limited .....	696583	704614 Ontario Ltd. ....	704614
577061 Ontario Limited .....	577061	696761 Ontario Limited .....	696761	704925 Ontario Limited .....	704925
577154 Ontario Ltd. ....	577154	697066 Ontario Limited .....	697066	705258 Ontario Inc. ....	705258
578295 Ontario Corp. ....	578295	697304 Ontario Limited .....	697304	705658 Ontario Limited .....	705658
578759 Ontario Limited .....	578759	697311 Ontario Limited .....	697311	706660 Ontario Inc. ....	706660
584108 Ontario Limited .....	584108	697464 Ontario Limited .....	697464	706827 Ontario Limited .....	706827
593180 Ontario Corp. ....	593180	697502 Ontario Limited .....	697502	707158 Ontario Inc. ....	707158
596512 Ontario Limited .....	596512	697596 Ontario Inc. ....	697596	707915 Ontario Limited .....	707915
598945 Ontario Limited .....	598945	697658 Ontario Limited .....	697658	715110 Ontario Inc. ....	715110
607752 Ontario Inc. ....	607752	697721 Ontario Limited .....	697721	723311 Ontario Ltd. ....	723311
608266 Ontario Inc. ....	608266	697731 Ontario Inc. ....	697731	724146 Ontario Limited .....	724146
613315 Ontario Limited .....	613315	697753 Ontario Inc. ....	697753	724214 Ontario Inc. ....	724214
614021 Ontario Limited .....	614021	697892 Ontario Inc. ....	697892	727164 Ontario Limited .....	727164
614022 Ontario Limited .....	614022	698023 Ontario Limited .....	698023	727554 Ontario Limited .....	727554
615057 Ontario Inc. ....	615057	698148 Ontario Limited .....	698148	730479 Ontario Inc. ....	730479
615926 Ontario Limited .....	615926	698193 Ontario Ltd. ....	698193	734429 Ontario Inc. ....	734429
621347 Ontario Limited .....	621347	698221 Ontario Ltd. ....	698221	737162 Ontario Ltd. ....	737162
626003 Ontario Ltd. ....	626003	698490 Ontario Ltd. ....	698490	748379 Ontario Limited .....	748379
628811 Ontario Ltd. ....	628811	698553 Ontario Inc. ....	698553	756762 Ontario Limited .....	756762
634636 Ontario Limited .....	634636	698652 Ontario Inc. ....	698652		
637948 Ontario Inc. ....	637948	698669 Ontario Inc. ....	698669		

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

7/91

## Errata

Vide Ontario Gazette, Vol. 123-17, dated April 28th, 1990.

NOTICE IS HEREBY GIVEN that the notice issued under section 240 (3) of the *Business Corporations Act* set out in the issue of the ONTARIO GAZETTE of April 28, 1990 with respect to the cancellation of the Certificate of Incorporation of M. I. A. Inc. was issued in error and is null and void.

Voir la Gazette de l'Ontario, Vol. 123-17 datée du le 28 avril 1990.

PAR LA PRÉSENTE, nous vous informons que l'avis emis en vertu de l'article 240 (3) de la *Loi sur les compagnies* et énoncé dans la GAZETTE

DE L'ONTARIO du le 28 avril 1990 relativement a l'annulation du certificat de constitution en personne morale de M. I. A. Inc. a été délivré par erreur et qu'il est nul et sans effet.

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

7/91

Vide Ontario Gazette, Vol. 123-46, dated November 17th, 1990.

NOTICE IS HEREBY GIVEN that the notice issued under section 240 (3) of the *Business Corporations Act* set out in the issue of the ONTARIO GAZETTE of November 17, 1990 with respect to the cancellation of the Certificate of Incorporation of 489089 Ontario Inc. was issued in error and is null and void.

Voir la Gazette de l'Ontario, Vol. 123-46 datée du le 17 novembre 1990.

PAR LA PRÉSENTE, nous vous informons que l'avis emis en vertu de l'article 240 (3) de la *Loi sur les compagnies* et énoncé dans la GAZETTE DE L'ONTARIO du le 17 novembre 1990 relativement a l'annulation du

certificat de constitution en personne morale de 489089 Ontario Inc. a été délivré par erreur et qu'il est nul et sans effet.

7/91

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

## Cancellation of Certificates of Incorporation (Corporations Tax Act Defaulters) Annulation de certificats de constitution en personne morale (Non-respect de la Loi sur l'imposition des personnes morales)

NOTICE IS HEREBY GIVEN that, under subsection 240 (3) of the *Business Corporations Act, 1982*, the Certificates of Incorporation of the corporations named hereunder have been cancelled by an Order dated 21 January, 1991 for default in complying with the provisions of the *Corporations Tax Act*, and the said corporations have been dissolved on that date.

AVIS EST DONNÉ PAR LA PRÉSENTE que, conformément au paragraphe 240 (3) de la *Loi de 1982 sur les compagnies*, les certificats de constitution en personne morale des compagnies dont les noms apparaissent ci-dessous ont été annulés par décision datée du 21 janvier 1991 pour non-respect des dispositions de la Loi sur l'imposition des personnes morales et que la dissolution des compagnies concernées prend effet à la date susmentionnée.

Name of Corporation Nom de la compagnie	Ontario Corporation Number Numéro matricule de la compagnie en Ontario	Name of Corporation Nom de la compagnie	Ontario Corporation Number Numéro matricule de la compagnie en Ontario	Name of Corporation Nom de la compagnie	Ontario Corporation Number Numéro matricule de la compagnie en Ontario
A.R.C. Agra-Distributors Ltd. ....	472527	Consec Incorporated .....	685777	Future Sun Inc. ....	688001
Aaron Property Management Inc. ..	687645	Contempra Marketing Services Inc. .	642922	G H Laminating Inc. ....	645001
Adrien Carrier Contracting Inc. ....	460378	Coral Island Seafood Inc. ....	684672	Gayne Appliance Service Ltd. ....	685786
Aislin Holdings Ltd. ....	601305	Coral Reef Pet Shops Limited .....	294825	General Drilling & Well Service Ltd .....	552527
Alex MacHine Tool Services Ltd. ....	460605	Cuisine Food Market Ltd. ....	684670	Genuine Replacement Parts Limited .....	348236
Allkin 3 Ltd. ....	686709	Cuts Unlimited Inc .....	634901	Germix Enterprises Limited .....	682554
Alpine Hills Properties Limited ....	687083	CYCS Management Inc. ....	686787	Gerson Oil Limited .....	642121
Andoria Limited .....	685061	Dawnryn Consultants Inc. ....	439736	Gilray Products Ltd. ....	640131
Andy's Towing Service Ltd. ....	686119	Day-Toro Distribution Inc. ....	629716	Gingerbread Real Estate Limited ..	498640
Applied Pneumatics Ltd. ....	536011	De. Ge. Be. Company Limited ....	458000	Glegto Building Inc. ....	282127
Aquarian Life Safety Systems Limited .....	688503	Decouto & Pereira Investments Ltd. ....	740140	Go For It Marketing Inc. ....	643408
ARC International Exports Inc. ....	429997	Divat Fashions Inc. ....	686397	Gobelli Shoes Ltd .....	684796
Argent Films Inc. ....	644672	Dryclean Canada And Linen Rental Inc. ....	508778	Goldic Aluminum & Glass Ltd. ....	686665
Arizswiss Holdings Inc. ....	428533	Dunbloor Music Centres Limited ..	229219	Gramardot Of Canada, Ltd. ....	687665
Aron Realty Limited .....	091152	Dyna-Can International Marketing Inc. ....	687319	Grand Wheel Motors Inc. ....	688104
ASAAPV Financial Corporation Limited .....	497400	Eastway Sales Ltd .....	685552	H. W. Wiza Blacksmith Inc. ....	686715
Associated Vending Services Inc. ....	686163	Edelweiss Farms Limited .....	154512	Habo Dacosta Graphics Ltd. ....	685638
Athletic Connection Inc. ....	685619	Eggs & Nuts Ltd. ....	528048	Halton Landscaping Corp. ....	429167
Barsa Manufacturing (Ontario) Limited .....	151635	El Pavellon De Oro Inc. ....	641701	Health Berry Plus Limited .....	685414
Bayview Sod & Nursery Company Limited .....	154305	Elan Records Inc. ....	494921	Heida Dairy Sales Limited .....	497001
Bellhaven Park Limited .....	427004	Elvic Industrial Corporation Of Canada Inc. ....	685059	Heimbecker Aircraft Sales & Rentals Ltd. ....	401911
Black Times Network Inc. ....	601042	Embroidery Graphics Limited .....	642626	Hemmingbirds Inc. ....	678981
Bonavista Film & Video Corp. ....	645507	Empire Drivers Pool Inc. ....	568924	High Rise Masonry Ltd. ....	685035
Borger Display Inc. ....	460289	Energetic Enterprises Ltd. ....	495628	Hilton Holiday Houseboats Ltd. ....	622229
Bulawayo Inc. ....	686337	Entertainment Kazaz Inc. ....	635361	Hodgins & New Co. Ltd. ....	595718
C. W. Fashion Sarees And Fabrics Ltd. ....	686789	Equinox Associates Inc. ....	688164	Hoi-Fong Express Limited .....	688093
Canadian International Marketing Inc. ....	684675	Everest Boat Builders Supply Inc. .	688522	Home Care Cleaning Service Inc. .	687654
Canamech Research Ltd. ....	685409	Evron Holdings Limited .....	200220	Home Care Innovations Inc. ....	688300
Canology Precision Products Inc. .	645534	F.I.P. Incorporated .....	604643	Home Systems Plus Inc. ....	685565
Cantica Trading Co Ltd .....	495156	Falcon Enterprise International Inc. ....	686790	Homeowners Guide Inc. ....	687305
Carat & Over Co. Limited .....	684703	Fats & Oils Technology Limited ...	668228	Howard Controls Limited .....	442288
Castle Sleep Shoppes Ltd. ....	686093	Finserve Canada Inc. ....	568834	H3 Data Accounting Services Inc. .	685604
Chartwell Theatre Productions Ltd. ....	406416	First Choice Computer Management Inc. ....	687361	I/O Network Inc. ....	686146
Chemical Divisional Stores Inc. ....	642990	First Commercial Interiors Inc. ....	688006	J. Ekker Carpentry Limited .....	684187
Churchway Holdings Inc. ....	688367	First Kitchener Securities Inc. ....	678937	J.C. Pellowe Enterprises Ltd. ....	458826
Cimpmac Investments Limited ....	688512	Fitness Cycle Corp. ....	685004	Jacob Katherine Developments Inc. .	687772
Cirella Holdings Canada Limited ....	688273	Frank Barauskas Limited .....	260296	JBW Industrial Design Inc. ....	568986
Combined Technologies Inc. ....	683103	Fransal Publishing Inc. ....	496974	Jescorp Holdings Inc. ....	685164
Computemp Personnel Inc. ....	695319	Fresca Limited .....	122307	John G. Lee Distributors Inc. ....	564926
		Friends Auto Body Inc. ....	505698	John Munro MacHinery Service Ltd. .	448236
				John's Plumbing And Heating Limited .....	207183
				JOR Diesel Holdings Ltd. ....	525023

Name of Corporation	Ontario Corporation Number Numéro matricule de la compagnie en Ontario	Name of Corporation	Ontario Corporation Number Numéro matricule de la compagnie en Ontario	Name of Corporation	Ontario Corporation Number Numéro matricule de la compagnie en Ontario
Kell Mechanical Ltd. ....	370097	Rietta Realty Inc. ....	495601	413507 Ontario Limited ....	413507
Kember Advanced Marketing Inc. .	683140	Ronald Shows Limited ....	681384	429107 Ontario Inc. ....	429107
Ken Blanchard Refractory Limited .	262233	Royal Pasta Incorporated ....	531120	429679 Ontario Limited ....	429679
Khairallah Inc. ....	686795	Royal Windsor Auto Collision Ltd. .	685481	454583 Ontario Inc. ....	454583
KJ Management Services Limited .	685553	Ruth & Sylvia Leaseholds Limited .	116365	459230 Ontario Limited ....	459230
Larry's Sports & Marine Ltd. ....	401113	S P Management Services Ltd. ....	317379	525536 Ontario Limited ....	525536
Laser Innovations Inc. ....	686770	S.M.A.C. Investments Inc. ....	684593	526316 Ontario Limited ....	526316
Lease Source Inc. ....	598102	Safe Kids Inc. ....	684938	543244 Ontario Limited ....	543244
Leslie Street Doctors Building Limited ....	216038	Samantha's Hairdressing Inc. ....	527507	548082 Ontario Limited ....	548082
Let Us Phone Ltd. ....	698901	Scopark Industries Inc. ....	686658	548326 Ontario Limited ....	548326
Levitronics Research Corp. ....	672104	Scott & Llewelyn Limited ....	686303	552598 Ontario Inc. ....	552598
LMS Advertising Inc. ....	684928	Season Property Dynamics Limited .	686160	552640 Ontario Limited ....	552640
Local Property Management Inc. .	564912	Security Trust Realty Corporation .	684836	564931 Ontario Inc. ....	564931
Luva Jewels Ltd. ....	568684	Shadows Window Fashions Inc. ....	683152	569376 Ontario Inc. ....	569376
M. S. P. Contractors Limited ....	332912	Shandaru Farms Limited ....	263227	570131 Ontario Limited ....	570131
M.D.D. Investments Ltd. ....	428539	Slidex Mfg. Inc. ....	685447	570401 Ontario Inc. ....	570401
MacKinrobb Variety Ltd. ....	646213	Startrade Canada Limited ....	687712	574867 Ontario Limited ....	574867
Makins International Inc. ....	685403	Steve Milani Masonary Inc. ....	686226	598307 Ontario Inc. ....	598307
Maple Leaf Irritec Incorporated ....	686338	Sunburst Fruit Markets Ltd. ....	687380	601014 Ontario Limited ....	601014
Maple Valley Farms Limited ....	504828	Superior Renovation And Construction Ltd. ....	657506	601714 Ontario Inc. ....	601714
Marici Properties Limited ....	685567	Surgimex Ltd. ....	684437	602509 Ontario Limited ....	602509
Marie Germain Advertising Limited	427794	Swayze Resources Limited ....	559009	603015 Ontario Limited ....	603015
Marylebone Properties Inc. ....	686224	Tamik Advertising Inc. ....	685026	604796 Ontario Inc. ....	604796
Matsol Chemicals Limited ....	684667	Tamrador Holdings Ltd. ....	568403	605073 Ontario Limited ....	605073
Matt Ages Limited ....	238278	Tekark Developments Inc. ....	681366	605222 Ontario Inc. ....	605222
Mayfair Management Corporation .	685569	Temagami Equipment Disposals Ltd. ....	460443	605719 Ontario Limited ....	605719
McCafferty Research Securities Corp. ....	686297	Tenmer Developments Limited ....	684744	614802 Ontario Limited ....	614802
McGrath Construction Equipment Limited ....	087127	Tennant Tire Service Limited ....	095638	634753 Ontario Incorporated ....	634753
Micromicro International Corporation ....	686172	Teredo Investments Limited ....	685557	637364 Ontario Limited ....	637364
Microtech Support Services Inc. .	605676	Thahorn Marketing Inc. ....	601970	637386 Ontario Inc. ....	637386
Mike's Fish Co. Limited ....	397769	That's Country Limited ....	346024	637539 Ontario Inc. ....	637539
Mile High Fashion Inc. ....	686309	The Fire Doctor Inc. ....	689505	637600 Ontario Inc. ....	637600
Mini-Lab Processing Ltd. ....	530500	The Hill Gate Development Corporation ....	688108	638217 Ontario Inc. ....	638217
MLN Designer Grafix Inc. ....	687379	The Platis Family Of Fine Cleaners (Mississauga) Limited .	688312	638221 Ontario Inc. ....	638221
Monolith Investments Inc. ....	683150	The Synform Corporation ....	459879	641122 Ontario Limited ....	641122
Naido Holdings & Developments Inc. ....	368971	Thunder Films Inc. ....	688056	641614 Ontario Inc. ....	641614
National Store Fixtures Limited ....	687398	Tordoff Electric (1984) Limited ....	577106	642955 Ontario Inc. ....	642955
Norman Rider Building Service Limited ....	404660	Toronto Advertising Products Of Canada Limited ....	315734	644122 Ontario Inc. ....	644122
Northern Ontario Business Forms And Systems Inc. ....	612203	Touchwood Toys Ltd. ....	685741	645166 Ontario Limited ....	645166
Octakey Investments Ltd. ....	430120	Tri-C Consultants Ltd. ....	688177	645350 Ontario Limited ....	645350
Ojay Trading Inc. ....	688116	Trident Educational Services Ltd. .	529078	647421 Ontario Limited ....	647421
Original Distribution Company (1987) Ltd. ....	724546	Triple Nine Acquisitions Ltd. ....	644816	660634 Ontario Inc. ....	660634
Osprey Bluff Estates Limited ....	276120	Tron-Ii Enterprises Limited ....	523087	670530 Ontario Inc. ....	670530
Ottawa Valley Driver Pool Inc. ....	595621	Tropitown Ltd. ....	685072	673471 Ontario Inc. ....	673471
Outa Town Xpress Limited ....	687672	Unicorn Shoe Shop Limited ....	602621	679700 Ontario Ltd. ....	679700
Paganini Dining Lounge Inc. ....	595638	Unikorp Canada Limited ....	460458	683078 Ontario Inc. ....	683078
Parkwood Homes Corporation ....	580599	Universal International Distributors Corporation ....	637716	683131 Ontario Limited ....	683131
Pedi-Kare Ltd. ....	688305	Uno Industrial Development Corporation ....	686628	683424 Ontario Ltd. ....	683424
Peel Interiors Inc. ....	687378	Vandestadt & McGruer Limited ....	568793	683425 Ontario Inc. ....	683425
Peelcraft Limited ....	602516	Venture Financial Brokers Inc. ....	685273	683426 Ontario Inc. ....	683426
Perks Entertainment & Corporate Services Co-Ordinators Inc. ....	687238	Warehouse Tire Sales (Orillia) Ltd. .	399093	683431 Ontario Inc. ....	683431
Platis At Yonge And Sheppard Inc. .	687674	Wawa Airways Inc. ....	566043	683436 Ontario Limited ....	683436
Plus Factor International Inc. ....	685415	Wellon Apparel Group Inc. ....	686656	683441 Ontario Limited ....	683441
Post Industrial Corporation ....	596822	Wenmelbra Holdings Limited ....	643513	684608 Ontario Limited ....	684608
Quali-Best Marketing Inc. ....	691816	Williams Brothers Contracting Ltd .	685812	684792 Ontario Inc. ....	684792
Quanza & H.K. Ltd. ....	600804	Wrong Track Investments Limited .	226294	684839 Ontario Inc. ....	684839
Queenval Developments Inc. ....	458502	X-I-M Products (Canada) Limited .	114609	684857 Ontario Ltd. ....	684857
R.B. Investment Strategy Inc. ....	687713	Yuris Business Machines Co. Limited ....	242376	684912 Ontario Limited ....	684912
Ram Tuff Shot Blasting Limited ....	683405	1260 Yonge Limited ....	685050	685053 Ontario Ltd. ....	685053
Raymar Compatibles Inc. ....	685519	264080 Holdings Limited ....	264080	685080 Ontario Limited ....	685080
		368081 Ontario Limited ....	368081	685187 Ontario Inc. ....	685187
				685208 Ontario Inc. ....	685208
				685435 Ontario Limited ....	685435
				685449 Ontario Limited ....	685449
				685479 Ontario Inc. ....	685479
				685511 Ontario Limited ....	685511
				685536 Ontario Inc. ....	685536
				685585 Ontario Limited ....	685585
				685605 Ontario Inc. ....	685605

Name of Corporation	Ontario Corporation Number Numéro matricule de la compagnie en Ontario	Name of Corporation	Ontario Corporation Number Numéro matricule de la compagnie en Ontario	Name of Corporation	Ontario Corporation Number Numéro matricule de la compagnie en Ontario
Nom de la compagnie		Nom de la compagnie		Nom de la compagnie	
685627 Ontario Limited	685627	686386 Ontario Limited	686386	687906 Ontario Limited	687906
685642 Ontario Limited	685642	686399 Ontario Inc.	686399	688007 Ontario Limited	688007
685643 Ontario Limited	685643	686609 Ontario Inc.	686609	688008 Ontario Limited	688008
685665 Ontario Inc.	685665	686673 Ontario Inc.	686673	688100 Ontario Limited	688100
685703 Ontario Inc.	685703	686735 Ontario Inc.	686735	688118 Ontario Inc.	688118
685748 Ontario Limited	685748	686743 Ontario Inc.	686743	688190 Ontario Limited	688190
686001 Ontario Limited	686001	686768 Ontario Inc.	686768	688212 Ontario Ltd.	688212
686070 Ontario Limited	686070	687027 Ontario Limited	687027	688426 Ontario Ltd.	688426
686091 Ontario Limited	686091	687213 Ontario Limited	687213	688496 Ontario Inc.	688496
686167 Ontario Ltd.	686167	687220 Ontario Limited	687220	688587 Ontario Limited	688587
686256 Ontario Inc.	686256	687288 Ontario Limited	687288	688829 Ontario Inc.	688829
686296 Ontario Limited	686296	687350 Ontario Limited	687350	690506 Ontario Inc.	690506
686306 Ontario Limited	686306	687609 Ontario Inc.	687609	694609 Ontario Limited	694609
686327 Ontario Limited	686327	687625 Ontario Ltd.	687625	723933 Ontario Limited	723933
686341 Ontario Ltd.	686341	687664 Ontario Inc.	687664	735970 Ontario Limited	735970
686348 Ontario Limited	686348	687747 Ontario Limited	687747		
686381 Ontario Limited	686381	687751 Ontario Ltd.	687751		

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

7/91

## Marriage Act/Loi sur le mariage

CERTIFICATES OF PERMANENT REGISTRATION as person authorized to solemnize marriage in Ontario have been issued to the following:

LES CERTIFICATS D'ENREGISTREMENT PERMANENT autorisant à célébrer des mariages en Ontario ont été délivrés à :

Vold, James P., Etobicoke; Kyle, Joseph P., Etobicoke; Scharf, George W., Petawana; Hanscom, Donald D., Kingston; Reid, Frank, Geraldton; Christie, Rupert, Oshawa; Curis, Carlo, Ottawa; Hedegaard, John, Brampton; Woodall, Brenda C., Courtright; Townshend, David W., Newboro; Hamp, Warren W., Beamsville; Miller, Henry L., Lucknow; Milnes, Marion, Bowmanville; Barber, Elaine, Port Perry; Vais, Thomas G., Caledonia; Van Nie, Johannes, Hamilton; Chisholm, Christopher, St. Andrew's West; Gault, Lawrence, Cornwall; Brunet, Marcel H., Cornwall; Gagnon, David, Essex; Danquah, Nana K., Rexdale; Boessenkool, Willem, London; Dunnett, Blaine W., Nobleton; Campbell, Alvin A., Brampton; Saliba, Issa, Maple; Gubuan, Woodrow, Toronto; Holderied, Kurt W., Toronto; Sharma, Subramania, Toronto; Brock, Nicole Marie, Burlington; Lava, Norbert George, La Sacette; Hill, Donald George, Scarborough; Donevan, David F., Toronto; Wauhkonen, Mildred Mary, Thunder Bay; Razak, Sheik F., Brampton; Holder, Coutland A., Toronto.

CERTIFICATES OF TEMPORARY REGISTRATION as person authorized to solemnize marriage in Ontario have been issued to the following:

LES CERTIFICATS D'ENREGISTREMENT TEMPORAIRE autorisant à célébrer des mariages en Ontario ont été délivrés à :

Muir, David John, Saskatchewan; Gregan, James Ivan, Dartmouth, N.S.; Aasman, Richard, St. Albert, Alberta; Miles, A. Thomas O., Montreal West, P.Q.; Stack, John, Dallas, Texas; MacLellan, Donald Duncan, Aylmer, Quebec; Eddis, Charles W., Montreal, Quebec; Friesen, Terry William, Calgary, Alberta.

CERTIFICATES OF REGISTRATION as person authorized to perform marriage in Ontario have been issued to the following Justices of the Peace.

LES CERTIFICATS D'ENREGISTREMENT autorisant à célébrer des mariages en Ontario ont été délivrés aux juges de paix suivants :

General-Lickers, Norma, Brantford; Oates, James Edward, Aurora; Matchett, Sheila M., Belleville; Lynch, Bruce P., Belleville; Pile, Herbert

George, Thunder Bay; Leggate, Robert E., Parry Sound; Green, Jerry Harold, Owen Sound.

NOTICES OF CANCELLATION OF REGISTRATION as person authorized to solemnize marriage in Ontario have been issued to the following:

LES AVIS DE RADIATION de personnes autorisées à célébrer des mariages en Ontario ont été envoyés à :

Hagler, James R., Toronto; Realmuto, George, Nepean; Boyd, Richard L., Thorold; McConnell, Desmond, St. Catharines; Ramsay, Kenneth A., Hamilton; Skelly, A. Gardiner, St. Catharines; Van To, Ut, Toronto; Irwin, Gerald W., Ingersoll; Reynolds, Brian F., St. Catharines; Scott, William G., New Liskeard; Carnahan, Martin, Halifax, N.S.; Love, David G., Delhi; Wishart, George A., Brantford; Morrow, George E., London; Menzies, Albert E., London; Kemp, Harold W., Etobicoke; Millson, Thomas E., Courtright; Jardine, Cecil M., London; Pease, Amasa Glenn, St. Davids; MacLeod, Alexander H.M., Cobalt; Bell, William S., Bobcageon; Payne, George W., Chatham; Barker, Ralph W., Orillia; Hancock, Thomas E., Pontypool; Miner, David Allen, Georgetown; Jarol, Richard Edward, Scarborough; Renshaw, Anthony, Oakville; Maillet, Valery, Sudbury; Lyons, W. Edwards, North Bay; Knighton, Robert A., Kingston; Gillis, Colin A., Downsview; Garand, Gilles P.E., Sudbury; Berube, Arthur, Sudbury; Crooks, Robert A., Ottawa; Barnum, David C., Alberta.

(4601) 7  
CAROLYNN LA CHAPELLE,  
Deputy Registrar General.

## Environmental Assessment Act Loi sur les évaluations environnementales

### NOTICE OF EXTENSION OF APPROVAL

I have been requested to arrange for publication in THE ONTARIO GAZETTE of the attached Notice of Extension of Approval under the *Environmental Assessment Act* given by the Minister of the Environment under subsection 14 (3) of the Act with the approval of the Lieutenant Governor in Council.

The name of the approved undertaking, the affected agency, and the applicable Order in Council number listed below:

Name of Approved Undertaking	Name of Affected Agency	Number of the Order in Council	Should you have any questions about this request, please contact Joan Lockhart-Grace of the Environmental Assessment Branch at 440-6987.	
Remote Northern Airport Program Exemption Order	Ministry of Transportation	1847/90	(4604) 7	DEREK DOYLE, Director, Environmental Assessment Branch.

## Pesticides Act/Loi sur les pesticides

### PROPOSAL TO SCHEDULE PESTICIDES

On the recommendation of the undersigned, I propose to add the ten (10) products listed below to the specified Schedules of Regulation 751 under the *Pesticides Act*.

Recommended by the Pesticides Advisory Committee, December 20, 1990.

DR. F. MCEWEN,  
Chairman.

Recommended by the Director under the *Pesticides Act*.

L. POFF,  
Director.

Proposal dated at Toronto this 1st day of February, 1991.

RUTH GRIER,  
Minister of the Environment.

Registration No.	Schedule	Registrant	Agent	Pesticide
18597	6	BBM	DJO	Ro-Pel (Domestic)
18968	6	BBM	DJO	Ro-Pel (Commercial)
20864	3	MOX		Renegade Liquid Herbicide
21336	3	CHP		C-I-L Weed & Grass Killer
21422	4	SFR		Safer's Rotenone Organic Garden Dust
21558	4	MMN		3M Pet & Premise Flea Spray
21635	4	CGC		Natural Solution Garden/Vegetable Bug Killer
21720	3	NOQ	JAK	Spin-Aid Postemergence Herbicide
21825	4	JOH		Raid Ant, Roach, Earwig Bug Killer For Crawling Insects
900021C	3	So-Green Corp.		So-Green Premium Plus 3 Weed & Feed 21-7-7

NOTE: This proposal is made under S.20 of Regulation 751, R.R.O., 1980, as amended by Ontario Regulation 223/86. Publication of this proposal in THE ONTARIO GAZETTE grants certain exemptions specified in S.20 (4) of the Regulation. These exemptions remain in effect for 18 months from the date of publication unless, before then, the proposal is revoked or an affected pesticide is placed in one of the schedules to Regulation 751.

(4603) 7

## Applications to Provincial Parliament—Private Bills Demandes au Parlement provincial—Projets de loi d'intérêt privé

### PUBLIC NOTICE

The rules of procedure and the fees and costs related to applications for Private Bills are set out in the Standing Orders of the Legislative Assembly. Copies of the Standing Orders may be obtained from:

The Office of the Clerk of the Legislative Assembly  
Room 1521, Whitney Block, Queen's Park  
Toronto, Ontario M7A 1A2

Telephone: 416/963-1300 (Collect calls will be accepted.)

Applicants should note that consideration of applications for Private Bills that are received after the first day of September in any calendar year may be postponed until the first regular Session in the next following calendar year.

(8699) T.F.N. CLAUDE L. DESROSIERS,  
Clerk of the Legislative Assembly.

## Petitions to Provincial Parliament Pétitions au Parlement provincial

Extract from the Standing Orders respecting petitions

35. (c) Every petition shall:
- (i) be addressed to the Parliament, Legislature or Legislative Assembly of Ontario;
  - (ii) contain a clear, proper and respectful request that the House take some action within its authority;
  - (iii) be written, typewritten or printed, without erasures or insertions;
  - (iv) have its request appear at the top of every sheet, if it consists of more than one sheet of signatures; and
  - (v) contain the names, addresses and original signatures written directly on the face of the petition and not pasted thereon or otherwise transferred to it.
- (d) Every member presenting a petition shall ensure that the petition conforms with the Standing Orders.
- (e) The signature of every member presenting a petition shall be affixed to the petition.

Further information with respect to petitions may be obtained from:

Journals Branch  
Room 110, Legislative Building  
Queen's Park  
Toronto, Ontario  
M7A 1A2

Telephone: 416/965-1406  
(Collect calls will be accepted.)

### SAMPLE FORM FOR PETITIONS

#### PETITION

TO *The Parliament/Legislature/Legislative Assembly* (choose one) of Ontario:—

WHEREAS (preamble if required)

WHEREAS (preamble if required)

I/We the undersigned petition the Parliament/Legislative Assembly (choose one) of Ontario as follows:—

(Text of Petition)

Name (printed)                      Address (printed)                      Signature

(4268) T.F.N.                      CLAUDE L. DESROSIERS,  
Clerk of the Legislative Assembly.

## Applications to Parliament of Canada Demandes au Parlement du Canada

### SEVENTH-DAY ADVENTIST CHURCH IN CANADA

NOTICE IS HEREBY GIVEN that, the Seventh-day Adventist Church in Canada, a corporation duly incorporated by chapter 85 of the Statutes of Canada, 1955, as amended, will apply to the Parliament of Canada at the present session thereof, or at either of the two sessions immediately following the present session, for an Act to amend its Act of incorporation for the purpose of changing the provisions establishing its Board of Directors and governing the composition and powers of the Board and changing other provisions of law governing its constitution.

DR. DOUGLAS DEVNICH  
President  
Seventh-day Adventist Church  
in Canada  
1148 King Street East  
Oshawa, Ontario  
L1H 1H8

(1118) 4 to 7

### ÉGLISE ADVENTISTE DU SEPTIÈME JOUR AU CANADA

SOYEZ AVISÉS QUE L'Église Adventiste du Septième Jour au Canada, une corporation constituée par le chapitre 85 des Statuts du Canada, 1955, tel que modifié, présentera une demande au Parlement du Canada, au cours de sa session actuelle ou de l'une des deux sessions suivantes, sollicitant l'adoption d'une loi modifiant sa loi constitutive afin de changer les dispositions régissant l'établissement, la composition et les pouvoirs du Conseil d'Administration de l'Église ainsi que d'autres dispositions constitutives.

M. DOUGLAS DEVNICH  
président  
L'Église Adventiste du Septième Jour  
au Canada  
1148, rue King ouest  
Oshawa (Ontario)  
L1H 1H8

(1119) 4 to 7

## Applications to Provincial Parliament Demandes au Parlement provincial

### THE CORPORATION OF THE CITY OF TORONTO

NOTICE IS HEREBY GIVEN that, on behalf of The Corporation of the City of Toronto, application will be made to the Legislative Assembly of the Province of Ontario, for an Act to permit Council to provide that, notwithstanding the Planning Act, members of a committee of adjustment appointed by Council under that Act, who are not members of Council, shall hold office for three years, but on the first appointments after the legislation comes into force, the Council shall designate members who shall hold office

- (a) until the 30th day of November of the year following the date of appointment;
- (b) until the 30th day of November of the second year following the date of appointment; and
- (c) until the 30th day of November of the third year following the date of appointment,

respectively, so that as nearly as possible one-third of the positions on the Committee shall be available for replacement.

This application will be considered by a Standing Committee of the Legislative Assembly. Any person who has an interest in the application and who wishes to make submissions, for or against the application, to the Standing Committee should notify in writing the Clerk of the Legislative Assembly, Queen's Park, Toronto, Ontario M7A 1A2.

Dated at Toronto, this 17th day of January, 1991.

DENNIS Y. PERLIN  
City Solicitor  
City Hall  
Toronto, Ontario  
M5H 2N2

(1120) 4 to 7

### ASTAIR COMPUTER SERVICES LTD.

NOTICE IS HEREBY GIVEN that, on behalf of ASTAIR COMPUTER SERVICES Ltd. application will be made to the Legislative Assembly of the Province of Ontario for an Act to revive the above company.

The application will be considered by the Standing Committee on Regulations and Private Bills. Any person who has an interest in the application and who wishes to make submissions, for or against the application, to the Standing Committee on Regulations and Private Bills should notify, in writing, the Clerk of the Legislative Assembly, Queen's Park, Toronto, Ontario M7A 1A2.

Dated at St. Andrews, New Brunswick, this 4th day of January, 1991.

(1121) 4 to 7

ALISTAIR MCDUGALL

### KOREAN-CANADIAN CULTURAL ASSOCIATION OF METROPOLITAN TORONTO

NOTICE IS HEREBY GIVEN that on behalf of the Korean-Canadian Cultural Association of Metropolitan Toronto, application will be made to the Legislative Assembly of the Province of Ontario at its next regular session commencing in 1991 for an Act to exempt the lands and premises owned by the said Korean-Canadian Cultural Association of Metropolitan Toronto and municipality, located at 20 Mobile Drive, in the City of North York, from municipal taxation, including school taxes.

The application will be considered by the Standing Committee on Regulations and Private Bills. Any person who has an interest in the application and who wishes to make submissions, for or against the application, to the Standing Committee on Regulations and Private Bills

should notify, in writing, the Clerk of the Legislative Assembly, Queen's Park, Toronto, Ontario, M7A 1A2.

Dated this 6th day of February, 1991.

(1282) 6 to 9 BOB BAK  
Commissioner, External Affairs

#### RIDEAU TRAIL ASSOCIATION

NOTICE IS HEREBY GIVEN that on behalf of Rideau Trail Association, application will be made to the Legislative Assembly of the Province of Ontario for an Act to revive the Corporation.

The application will be considered by the Standing Committee on Regulations and Private Bills. Any person who has an interest in the application and who wishes to make submissions, for or against the application, to the Standing Committee on Regulations and Private Bills should notify, in writing, the Clerk of the Legislative Assembly, Queen's Park, Toronto, Ontario, M7A 1A2.

Dated at Kingston, this 29th day of January, 1991.

(1289) 7 to 10 ELIZABETH M. MCIVER,  
Vice-President.

### Corporation Notices Avis relatifs aux compagnies

#### CITIZEN ADVOCACY OSHAWA Ontario Corporation No. 604775

NOTICE IS HEREBY GIVEN that the location of the Head Office of CITIZEN ADVOCACY OSHAWA was changed from 522 Camelot Drive, Oshawa, Ontario, L1K 1K4 to 618 Carnegie Avenue, Oshawa, Ontario, L1G 4R3.

Dated this 30th day of January, 1991.

(1293) 7 HOLLY WILLIAMS,  
Secretary.

#### CITIZEN ADVOCACY OSHAWA Ontario Corporation No. 604775

NOTICE IS HEREBY GIVEN that the number of directors of CITIZEN ADVOCACY OSHAWA was decreased from NINE to THREE by a special resolution which was confirmed by the members of the corporation on the 14th day of January, 1991.

Dated this 30th day of January, 1991.

(1294) 7 HOLLY WILLIAMS,  
Secretary.

#### ORLON MASONRY CONTRACTORS LTD.

NOTICE IS HEREBY GIVEN that Orlon Masonry Contractors Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 2nd day of January, 1991.

(1295) 7 NINO DE PIERO,  
President.

#### 649839 ONTARIO LIMITED

NOTICE IS HEREBY GIVEN that 649839 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 30th day of September, 1990.

(1296) 7

#### OPTIONAL FURNITURE DESIGN INC.

NOTICE IS HEREBY GIVEN that Optional Furniture Design Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 10th day of January, 1991.

(1297) 7 BALJIT PAL,  
Director.

#### MONSIC INVESTMENTS LIMITED

NOTICE IS HEREBY GIVEN that Monsic Investments Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 30th day of January, 1991.

(1298) 7 PAUL MONACO,  
Secretary.

#### REEL-T INVESTMENTS LIMITED

NOTICE IS HEREBY GIVEN that Reel-T Investments Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 1st day of February, 1991.

(1299) 7 WILLIAM MCGREW,  
President.

#### TORONTO EATON CENTRE MERCHANTS' ASSOCIATION

NOTICE IS HEREBY GIVEN that the Toronto Eaton Centre Merchants' Association intends to terminate its corporate existence by surrendering its charter pursuant to section 319 of the *Corporations Act* (c. 95, R.S.O. 1980, as amended).

Dated at Toronto, this 5th day of February, 1991.

(1300) 7 SANDY PELLETIER-SEVERN,  
Secretary.

#### COMMUNITY ARTS ONTARIO

NOTICE IS HEREBY GIVEN that the size of the board of directors of Community Arts Ontario was increased from six (6) to ten (10) by a special resolution passed by the signature of all of the members of the Corporation on the 9th day of January, 1990.

(1301) 7 JEAN SINCLAIR,  
Chairman.

#### HAYMAN INVESTMENTS (LONDON) LIMITED

NOTICE IS HEREBY GIVEN that Hayman Investments (London) Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at London, this 24th day of January, 1991.

(1302) 7 GORDON E. PETERSON,  
Solicitor.

#### SOBKO FOOD MARKET LIMITED

NOTICE IS HEREBY GIVEN that Sobko Food Market Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 18th day of January, 1991.

(1303) 7 JOHN SOBKO,  
President.

#### 556603 ONTARIO LIMITED

NOTICE IS HEREBY GIVEN that 556603 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 31st day of October, 1989.

(1304) 7 HELEN E. BAND,  
President.

**FRANK J. BRUCE LIMITED**

NOTICE IS HEREBY GIVEN that Frank J. Bruce Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 4th day of February, 1991.

FRANK J. BRUCE,  
President.

(1305) 7

**ATONA TRADING COMPANY LTD.**

NOTICE IS HEREBY GIVEN that Atona Trading Company Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 1st day of February, 1991.

THOMAS C. PINCKARD, ESQ.,  
Barrister & Solicitor.

(1306) 7

**JOHN GERBER PLUMBING & HEATING LIMITED**

NOTICE IS HEREBY GIVEN that John Gerber Plumbing & Heating Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 29th day of January, 1991.

JOHN GERBER,  
President.

(1307) 7

**TRENT APPLIANCE MFG. LIMITED**

NOTICE IS HEREBY GIVEN that Trent Appliance Mfg. Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 31st day of January, 1991.

CHRISTINA LEE CLARK,  
Secretary.

(1308) 7

**FRANK GERRY & CO., LIMITED**

NOTICE IS HEREBY GIVEN that Frank Gerry & Co., Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 28th day of January, 1991.

MANSELL C. GERRY,  
Secretary.

(1309) 7

**WESTERN COMMODITIES LTD.**

NOTICE IS HEREBY GIVEN that Western Commodities Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 28th day of January, 1991.

R. J. ADDINGTON,  
President.

(1310) 7

**THE RH3 SYSTEMS GROUP LTD.**

NOTICE IS HEREBY GIVEN that The RH3 Systems Group Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Ottawa, this 18th day of January, 1991.

PETER HIKEY,  
Secretary.

(1311) 7

**760450 ONTARIO INC.**

NOTICE IS HEREBY GIVEN that 760450 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 29th day of January, 1991.

(1312) 7

**DIMSON & SMITH LIMITED**

NOTICE IS HEREBY GIVEN that Dimson & Smith Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 30th day of January, 1991.

K. R. SMITH,  
Secretary Treasurer.

(1313) 7

**GER-CAN TRADE AND MARKETING CONSULTANTS INC.**

NOTICE IS HEREBY GIVEN that Ger-Can Trade and Marketing Consultants Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Waterloo, this 28th day of January, 1991.

J. WETTLAUER,  
Secretary.

(1314) 7

**COMMUNITY FOOD FOUNDATION OF BARRIE INC.**

TAKE NOTICE that by special resolution of the Community Food Foundation of Barrie Inc., Ontario Corporation Number 592701, confirmed by the members on May 15, 1990, the number of directors of this Corporation was increased from seven to twelve.

Dated this 22nd day of January, 1991.

LILLIAN JONES,  
Secretary.

(1315) 7

**BEATTY TRENCHING LTD.**

NOTICE IS HEREBY GIVEN that Beatty Trenching Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 28th day of February, 1991.

(1316) 7

**530061 ONTARIO LIMITED**

NOTICE IS HEREBY GIVEN that 530061 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 30th day of November, 1990.

DOUGLAS G. McDOUGALL,  
President.

(1317) 7

**T.C. TELECOMMUNICATIONS GROUP LIMITED**

NOTICE IS HEREBY GIVEN that T.C. Telecommunications Group Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Mississauga, this 31st day of December, 1990.

RICHARD MALONE,  
Director.

(1318) 7

**VISUSCAN INC.**

NOTICE IS HEREBY GIVEN that Visuscan Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Ottawa, this 31st day of January, 1991.

THOMAS A. PEACOCKE,  
Secretary.

(1319) 7

**594663 ONTARIO INC.**

NOTICE IS HEREBY GIVEN that 594663 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 1st day of February, 1991.

JOHN B. CAWTHORNE,  
President.

(1320) 7

**ALPETTE INVESTMENTS INC.**

NOTICE IS HEREBY GIVEN that Alpette Investments Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Amherstburg, this 5th day of February, 1991.

(1321) 7

DR. E. L. PAQUETTE,  
Secretary Treasurer.

## **Dissolution of Partnership Dissolution de sociétés**

**MARSHALL FLORISTS**

TAKE NOTICE that a partnership between Cheryl Ann Marshall and Sandra Marion Marshall operating as Marshall Florists has been dissolved as at July 3, 1989. Sandra Marion Marshall continues to carry on business as a proprietorship under the name and style of Marshall Florists.

Dated this 29th day of January, 1991.

7/91

LOU-ANNE F. FARRELL

## **Miscellaneous Notices Avis divers**

**SCOR VIE**

NOTICE IS HEREBY GIVEN, in accordance with Section 29 of the *Insurance Act* of the intention of SCOR Vie, a subsidiary of Société Commerciale de Réassurance, having its head office in Puteaux, France, to make application to the Superintendent of Insurance for a licence to transact the business of insurance in Ontario, limited to reinsurance in the following classes: accident and sickness, and life insurance.

LANG MICHENER LAWRENCE & SHAW  
1 First Canadian Place  
Suite 800  
Toronto, Ontario  
M5X 1A2  
Solicitors to the Applicant

(1182) 5 to 7

## **Sheriffs' Sales of Lands Ventes de terrains par le shérif**

Under and by virtue of a Writ of Seizure and Sale issued out of the District Court of Ontario and to me directed bearing the date the 21st day of June, 1990, against the real and personal property of BRUCE BAJADA and 686983 ONTARIO INC. carrying on business as RENT-A-WRECK, at the suit of INTERCITY FORD SALES LIMITED, I have seized and taken into execution the undivided half share or interest and all other right, title, interest and equity of redemption of the said BRUCE BAJADA in land described as follows:

ALL and singular that certain parcel or tract of land and premises situate, lying and being in the City of Thunder Bay, in the District of Thunder Bay, and being composed of that portion of Lot FIFTY-SIX (56), according to a Plan registered in the Registry Office for the Registry Division of Thunder Bay as Number 750, designated as Part TWO (2) as shown on a Reference Plan of Survey registered in the Registry Office for the Registry Division of Thunder Bay as Number 55R-1709.

The above described property registered as Instrument No. 251226, in Land Registry Division in the City of Thunder Bay in the Province of Ontario under date of November 17th, 1983. This real property is said to consist of a residential dwelling with cedar siding, garage, outbuilding,

asphalt driveway and fenced lot. Municipally known as 590 Strathcona Avenue, Thunder Bay, Ontario.

ALL of which said undivided half share or interest and all other right, title, interest and equity of redemption of the said BRUCE BAJADA in the said land and tenements I shall offer for sale by public auction at Court Room #3, (basement), District Court House, 277 Camelot Street, Thunder Bay, Ontario, on FRIDAY, MARCH 22, 1991 at 3:00 o'clock in the afternoon.

TERMS: Cash or certified cheque made payable to the Treasurer of Ontario.  
Deposit 10% of bid price at time of sale.  
Balance payable within ten days.  
Delivery only on payment in full, failing which deposit is forfeited.  
This sale is subject to cancellation up to time of sale without further notice.

NOTE: No person working for the Ministry of the Attorney General, or officials of the Provincial Court (Civil Division) or persons working for them shall purchase either directly or indirectly any goods, chattels, lands or tenements exposed by a Sheriff for sale under legal process.

Dated at Thunder Bay, Ontario, this 15th day of January, 1991.

(1290) 7  
George H. Burns, Sheriff  
District of Thunder Bay.

Under and by virtue of a Writ of Seizure and Sale issued out of Provincial Court (Civil Division), Thunder Bay Small Claims Court and to me directed bearing the date the 30th day of November, 1989, against the real and personal property of DARCY FREDERICK HAGBERG and JOY HAGBERG, at the suit of RICHARD A. HALABISKY. I have seized and taken in execution all the right, title, interest and equity of redemption of the said DARCY FREDERICK HAGBERG and JOY HAGBERG, in and to:

All and singular that certain parcel or tract of land and premises situate, lying and being in the Township of Pearson, in the District of Thunder Bay and the Province of Ontario and being composed of the Parcel 15234, Thunder Bay Freehold, being the Easterly half from front to rear of even perpendicular width throughout of Lot 14 in the First Concession, in the Township of Pearson District of Thunder Bay.

The above described property registered as Instrument No. 236095, in Land Registry Division of Thunder Bay (55) of Ontario under date of October 28, 1988. (vacant land) MUNICIPALLY known as R.R. #1, South Gillies, Ontario.

ALL of which said right, title, interest and equity of redemption of DARCY FREDERICK HAGBERG and JOY HAGBERG, In the said real property, I shall offer for sale by Public Auction, Court Room 3 (basement), District Court House, 277 Camelot Street, Thunder Bay, Ontario, on FRIDAY, MARCH 22, 1991 at 2:30 o'clock in the afternoon.

TERMS: Cash or certified cheque made payable to the Treasurer of Ontario.  
Deposit 10% of bid price at time of sale.  
Balance payable within ten days.  
Delivery only on payment in full, failing which deposit is forfeited.  
This sale is subject to cancellation up to time of sale without further notice.

NOTE: No person working for the Ministry of the Attorney General, or officials of the Provincial Court (Civil Division) or persons working for them shall purchase either directly or indirectly any goods, chattels, lands or tenements exposed by a Sheriff for sale under legal process.

Dated at Thunder Bay, Ontario, this 15th day of January, 1991.

(1291) 7  
George H. Burns, Sheriff  
District of Thunder Bay.



# Publications under the Regulations Act

## Publications en vertu de la Loi sur les règlements

1991—02—16

### LIMITED PARTNERSHIPS ACT

#### O. Reg. 11/91.

General.

Made—January 21st, 1991.

Filed—January 22nd, 1991.

### REGULATION TO AMEND REGULATION 578 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE LIMITED PARTNERSHIPS ACT

**1.—(1)** Subsections 1 (1), (2) and (3) of Regulation 578 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 443/82, are revoked and the following substituted:

(1) A declaration, a declaration of change and a declaration of dissolution or withdrawal shall be in a form provided or approved by the Minister of Consumer and Commercial Relations. O. Reg. 11/91, s. 1 (1), *part*.

**(2)** Subsection 1 (5) of the Regulation is revoked.

**2.** The Regulation is amended by adding the following sections:

**1a.** A declaration filed under subsection 3 (2) or 24 (1) of the Act shall set out the following information:

1. The firm name under which the limited partnership is to be conducted.
2. The general nature of the business of the limited partnership.
3. For each general partner who is an individual, the partner's surname, the given name by which the partner is commonly known, the first letters of the partner's other given names and the partner's residential address or address for service, including municipality, street and number, if any, and postal code.
4. For each general partner that is not an individual, the partner's name and address or address for service, including municipality, street and number, if any, and postal code, and the partner's Ontario corporation number, if any.
5. The address of the limited partnership's principal place of business in Ontario, including municipality, street and number, if any, and postal code, and the mailing address of the limited partnership. O. Reg. 11/91, s. 2, *part*.

**3a.** A record of limited partners required by subsection 3a (1) or 24a (1) of the Act shall set out the following information for each limited partner:

1. If the partner is an individual, the partner's surname, the given name by which the partner is commonly known, the first letters of the partner's other given names and the partner's residential address or address for service, including municipality, street and number, if any, and postal code.

2. If the partner is not an individual, the partner's name and address or address for service, including municipality, street and number, if any, and postal code, and the partner's Ontario corporation number, if any.

3. The amount of money and the value of other property contributed or to be contributed by the partner to the limited partnership. O. Reg. 11/91, s. 2, *part*.

**3.—(1)** Forms 1, 2 and 3 of the Regulation are revoked.

**(2)** Forms 1A, 2A and 3A of the Regulation, as made by section 2 of Ontario Regulation 443/82, are revoked.

**4.** This Regulation comes into force on the day section 5 of the *Business Information Statute Law Amendment Act, 1989* comes into force.

7/91

### CORPORATIONS INFORMATION ACT

#### O. Reg. 12/91.

General.

Made—January 21st, 1991.

Filed—January 22nd, 1991.

### REGULATION TO AMEND REGULATION 189 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE CORPORATIONS INFORMATION ACT

**1.** Section 1 of Regulation 189 of Revised Regulations of Ontario, 1980 is revoked and the following substituted:

**1.—(1)** An initial notice, a notice of change and a notice required under section 5 of the Act shall be in a form provided or approved by the Minister.

**(2)** The information required to be set out in a notice mentioned in subsection (1) shall be typewritten or machine-printed. O. Reg. 12/91, s. 1, *part*.

**1a.** An initial notice under subsection 3 (1) of the Act shall set out the following information in respect of a corporation:

1. The name of the corporation.
2. The Ontario corporation number of the corporation.
3. The date of its incorporation, continuation or amalgamation, whichever is the most recent.
4. The names and residential addresses of the corporation's directors, including municipality, street and number, if any, and postal code.
5. The date on which each director became a director and, where applicable, the date on which a director ceased to be a director.
6. If the corporation is a corporation with share capital, a statement as to whether each director is or is not a resident Canadian.

7. The names and residential addresses, including municipality, street and number, if any, and postal code, of the corporation's president, secretary, treasurer and general manager, or the holders of any equivalent offices.
8. The date on which each person referred to in paragraph 7 became an officer, and, where applicable, the date on which an officer ceased to be an officer.
9. The address of the corporation's head or registered office and, if different from the head or registered office, its principal place of business in Ontario, including municipality, street and number, if any, and postal code, in each case. O. Reg. 12/91, s. 1, *part*.

**2. Section 2 of the Regulation, as remade by section 1 of Ontario Regulation 231/85, is revoked and the following substituted:**

2. An initial notice under subsection 4 (1) of the Act shall set out the following information in respect of an extra-provincial corporation:

1. The name of the corporation.
2. The Ontario corporation number of the corporation.
3. The date of its incorporation, continuation or amalgamation, whichever is the most recent.
4. The name of the jurisdiction in which the corporation was incorporated, continued or amalgamated, whichever is the most recent.
5. The address of the corporation's head or registered office, including municipality, street and number, if any, and postal code.
6. The date on which the corporation commenced activities in Ontario, and, where applicable, the date on which it ceased activities in Ontario.
7. The name and office address of the corporation's chief officer or manager in Ontario, if any, including municipality, street and number, if any, and postal code, the date on which the person assumed this position, and, where applicable, the date on which the person ceased to hold this position.
8. The address of the corporation's principal office in Ontario, if any, including municipality, street and number, if any, and postal code.
9. If the corporation is required by law to have an agent for service in Ontario, the name and address of its agent, including municipality, street and number, if any, and postal code, and the Ontario corporation number of the agent, if the agent is a corporation. O. Reg. 12/91, s. 2.

**3. Section 3 of the Regulation, as remade by section 1 of Ontario Regulation 231/85, is revoked.**

**4.—(1) Section 8 of the Regulation, as amended by section 1 of Ontario Regulation 838/82 and section 1 of Ontario Regulation 698/88, is further amended by striking out the portion before paragraph 1 and substituting the following:**

8. The following classes of corporations are exempt from filing under sections 3 and 4 of the Act:

(2) Paragraphs 4 and 5 of section 8 are revoked.

5. Forms 1 and 2 of the Regulation, as remade by section 2 of Ontario Regulation 231/85, are revoked.

6. This Regulation comes into force on the day section 3 of the *Business Information Statute Law Amendment Act, 1989* comes into force.

7/91

## ENVIRONMENTAL ASSESSMENT ACT

### O. Reg. 13/91.

Designation—Lake Ontario Steel Limited—  
A Division of Co-Steel Inc.  
Made—January 17th, 1991.  
Filed—January 23rd, 1991.

## REGULATION MADE UNDER THE ENVIRONMENTAL ASSESSMENT ACT

DESIGNATION—LAKE ONTARIO STEEL COMPANY—  
A DIVISION OF CO-STEEL INC.

1. In this Regulation,

“Lake Ontario Steel Company—A Division of Co-Steel Inc.” includes any person related to Lake Ontario Steel Company—A Division of Co-Steel Inc. by ownership and any person who is a party to a contract with Lake Ontario Steel Company—A Division of Co-Steel Inc. respecting the enterprise or activity described in subsection 2 (1);

“site” means the land located on Part Lots 22, 23, 24 and Part of Road Allowance between Part Lots 22 and 23, Broken Front Concession, Town of Whitby in The Regional Municipality of Durham. O. Reg. 13/91, s. 1.

2.—(1) The enterprise or activity by Lake Ontario Steel Company—A Division of Co-Steel Inc. of disposing on the site of by-product waste originating from its car shredder operations, other than disposing of by-product waste by a method set out in subsection (2), is defined as a major commercial or business enterprise or activity and is designated as an undertaking to which the Act applies.

(2) The methods referred to in subsection (1) are:

1. Transporting the by-product waste to another location.
2. Reusing the by-product waste, other than reusing it as a fuel.
3. Transferring and storing the by-product waste in accordance with a certificate of approval or provisional certificate of approval issued under Part V of the *Environmental Protection Act*, where the certificate or provisional certificate provides that no additional by-product waste shall be transferred or stored under the certificate after the date that is six months after the date a decision is made under the *Environmental Assessment Act* to give or refuse approval to proceed with the undertaking designated by this Regulation. O. Reg. 13/91, s. 2.

7/91

## HOMES FOR THE AGED AND REST HOMES ACT

### O. Reg. 14/91.

General.  
Made—January 21st, 1991.  
Filed—January 23rd, 1991.

## REGULATION TO AMEND REGULATION 502 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE HOMES FOR THE AGED AND REST HOMES ACT

1. Item 61 of Table 1 of Regulation 502 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 620/90, is revoked and the following substituted:

61.	From and including the 1st day of December, 1990 up to and including the 31st day of January, 1991 .....	24.33	56.71	42.12	100.00
62.	From and including the 1st day of February, 1991 .....	24.58	56.71	42.37	100.00

7/91

**GENERAL WELFARE ASSISTANCE ACT****O. Reg. 15/91.**

General.

Made—January 21st, 1991.

Filed—January 23rd, 1991.

**REGULATION TO AMEND  
REGULATION 441 OF REVISED REGULATIONS  
OF ONTARIO, 1980  
MADE UNDER THE  
GENERAL WELFARE ASSISTANCE ACT**

1. Item 41 of Schedule E to Regulation 441 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 573/90, is revoked and the following substituted:

41.	From and including the 1st day of November, 1990 up to and including the 31st day of January, 1991	\$24.33	67.13	100.00	58.33
42.	From and including the 1st day of February, 1991	\$24.58	67.13	100.00	58.33

7/91

**FAMILY BENEFITS ACT****O. Reg. 16/91.**

General.

Made—January 21st, 1991.

Filed—January 23rd, 1991.

**REGULATION TO AMEND  
REGULATION 318 OF REVISED REGULATIONS  
OF ONTARIO, 1980  
MADE UNDER THE  
FAMILY BENEFITS ACT**

1. Subclause 12 (5) (e) (i) of Regulation 318 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 572/90, is revoked and the following substituted:

- (i) \$24.58 a day, or

2. This Regulation comes into force on the 1st day of February, 1991.

7/91

**CHARITABLE INSTITUTIONS ACT****O. Reg. 17/91.**

General.

Made—January 21st, 1991.

Filed—January 23rd, 1991.

**REGULATION TO AMEND  
REGULATION 95 OF REVISED REGULATIONS  
OF ONTARIO, 1980  
MADE UNDER THE  
CHARITABLE INSTITUTIONS ACT**

1. Item 62 of Table 1 of Regulation 95 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 619/90, is revoked and the following substituted:

62.	From and including the 1st day of December, 1990 up to and including the 31st day of January, 1991 .....	24.33	66.24	42.12	100.00	41.49
63.	From and including the 1st day of February, 1991 .....	24.58	66.24	42.37	100.00	41.49

7/91

**LOCAL ROADS BOARDS ACT****O. Reg. 18/91.**

General.

Made—January 21st, 1991.

Filed—January 24th, 1991.

**REGULATION TO AMEND  
REGULATION 600 OF REVISED REGULATIONS  
OF ONTARIO, 1980  
MADE UNDER THE  
LOCAL ROADS BOARDS ACT**

**1. Forms 1, 2, 3, 4, 5, 6, 7 and 8 of Regulation 600 of Revised Regulations of Ontario, 1980 are revoked and the following substituted:**

**Form 1***Local Roads Boards Act***TRUSTEE'S DECLARATION OF OFFICE**

I, ....., do hereby declare the following:

1. I am at least eighteen years of age.
2. I am a Canadian citizen or landed immigrant.
3. I am the owner of Lot..... in Concession..... of the Township of.....
4. I will faithfully and impartially perform my duties as Trustee of the Local Roads Board for the..... Local Roads Area.
5. I have not accepted and will not accept any improper payment or reward for performing my duties as Trustee.
6. I owe no arrears in taxes under the *Local Roads Boards Act* in respect of any previous years.

Dated the..... day of....., 19.....

Signed by: .....

Witnessed by: .....

**Formule 1***Loi sur les régies des routes locales*

**DÉCLARATION D'ENTRÉE EN FONCTION DE  
L'ADMINISTRATEUR**

Je soussigné(e), ....., déclare ce qui suit par la présente :

1. J'ai au moins dix-huit ans.
2. Je suis citoyen(ne) canadien(ne) ou immigrant(e) admis(e).
3. Je suis le propriétaire du lot ..... dans la concession ..... du canton d.....
4. J'exercerai fidèlement et impartialement mes fonctions d'administrateur de la régie des routes locales de la zone de routes locales d.....
5. Je n'ai pas accepté et n'accepterai pas de paiement ni de rémunération inappropriés en ce qui concerne l'exercice de mes fonctions d'administrateur.
6. Je ne dois aucun arriéré d'impôt payable aux termes de la *Loi sur les régies des routes locales* à l'égard d'années antérieures.

Fait le ..... 19.....

Signé par : .....

Témoin : .....

O. Reg. 18/91, s. 1, part.

**Form 2***Local Roads Boards Act***DECLARATION OF SECRETARY-TREASURER**

I, ....., do hereby declare the following:

1. I am at least eighteen years of age.
2. I am a Canadian citizen or landed immigrant.
3. I will faithfully and impartially perform my duties as Secretary-Treasurer of the Local Roads Board for the ..... Local Roads Area.
4. I have not accepted and will not accept any improper payment or reward for performing my duties as Secretary-Treasurer.
5. I owe no arrears in taxes under the *Local Roads Boards Act* in respect of any previous years.

Dated the..... day of....., 19.....

Signed by: .....

Witnessed by: .....

**Formule 2***Loi sur les régies des routes locales***DÉCLARATION DU SECRÉTAIRE-TRÉSORIER**

Je soussigné(e), ....., déclare ce qui suit par la présente :

1. J'ai au moins dix-huit ans.
2. Je suis citoyen(ne) canadien(ne) ou immigrant(e) admis(e).
3. J'exercerai fidèlement et impartialement mes fonctions de secrétaire-trésorier de la régie des routes locales de la zone de routes locales d.....
4. Je n'ai pas accepté et n'accepterai pas de paiement ni de rémunération inappropriés en ce qui concerne l'exercice de mes fonctions de secrétaire-trésorier.
5. Je ne dois aucun arriéré d'impôt payable aux termes de la *Loi sur les régies des routes locales* à l'égard d'années antérieures.

Fait le ..... 19.....

Signé par : .....

Témoin : .....

O. Reg. 18/91, s. 1, part.

**Form 3***Local Roads Boards Act*

## PETITION

To the Honourable ....., Minister of Transportation:

At a meeting held under section 7 of the *Local Roads Boards Act*, on the..... day of....., 19....., the majority of the owners of land in the proposed Local Roads Area voted in favour of establishing such an area, bounded by (or composed of)

and including the following local roads within that area:

At that meeting, those owners elected the following from among themselves to be trustees of the Board:

and the person signing below was elected secretary of the meeting.

Therefore, that person on behalf of those owners hereby requests the

Honourable....., Minister of Transportation, to establish the proposed Local Roads Area as a Local

Roads Area under the *Local Roads Boards Act*, and to designate that the roads mentioned above be included in it.

Dated at.....

this..... day of.....

19.....

Secretary

**Formule 3***Loi sur les régies des routes locales*

## PÉTITION

À l'honorable ....., ministre des Transports :

Lors d'une assemblée tenue aux termes de l'article 7 de la *Loi sur les régies des routes locales* le .....

19....., la majorité des propriétaires de biens-fonds situés dans la zone de routes locales projetée a voté en faveur de la création d'une zone de routes locales limitée par (ou composée de)

et comprenant les routes locales suivantes :

Lors de cette assemblée, les propriétaires ont élu les personnes suivantes parmi eux aux fonctions d'administrateurs de la régie :

et la personne dont la signature est apposée ci-dessous a été élue secrétaire de l'assemblée.

Par conséquent, cette personne, au nom des propriétaires, demande par

la présente à l'honorable ....., ministre des Transports, de créer la zone de routes locales projetée en tant que zone de routes locales en vertu de la *Loi sur les régies des routes locales*, et d'y inclure, par désignation, les routes locales mentionnées ci-dessus.

Fait à .....

le ..... 19.....

Secrétaire

O. Reg. 18/91, s. 1, part.

**Form 4***Local Roads Boards Act***CAUTION**

To: The Land Registrar for the Land Titles Division of.....

.....

I, ....., of the.....

....., in the.....

the Secretary-Treasurer of the Local Roads Board for the.....

..... Local Roads Area, hereby give notice that this Board

has an interest in the land registered in the name of.....

..... as Parcel..... in the

Register for....., and I require that the registered owner not deal with the land until I am served with notice.

The Board's interest in the land is as follows:

1. The taxes imposed under the *Local Roads Boards Act* have been unpaid for two years or more.
2. The land and every interest in it will be liable to be forfeited to and vested in the Crown unless all taxes, penalties and prescribed costs due under the *Local Roads Boards Act* are paid.

My address for service is.....

.....

Dated at....., this..... day of.....

19.....

.....

Secretary-Treasurer

**Formule 4***Loi sur les régies des routes locales***AVERTISSEMENT**

Au: Registraire de la division d'enregistrement des droits immobiliers

d.....

Je soussigné(e), .....,

d....., dans .....,

secrétaire-trésorier de la régie des routes locales de la zone de routes

locales d....., donne avis par la présente que la régie a un intérêt relatif au bien-fonds enregistré au nom

d..... comme parcelle .....,

dans le registre d....., et je requiers que le propriétaire inscrit n'effectue aucune opération relative au bien-fonds jusqu'à ce qu'un avis me soit signifié à cette fin.

L'intérêt que la régie possède relativement au bien-fonds est le suivant :

1. L'impôt prévu par la *Loi sur les régies des routes locales* n'a pas été payé pendant au moins deux ans.

2. Le bien-fonds et tout intérêt qui y est relatif peuvent être confisqués et dévolus à la Couronne, à moins que l'intégralité de l'impôt, de la pénalité et des frais prescrits exigibles conformément à la *Loi sur les régies des routes locales* ne soit payée.

Mon adresse aux fins de signification est .....

.....

Fait à ..... le ..... 19.....

Secrétaire-trésorier

O. Reg. 18/91, s. 1, part.

**Form 5***Local Roads Boards Act***CAUTION**

To: The Land Registrar for the Registry Division of.....

.....

I, ....., of the.....

....., in the.....

the Secretary-Treasurer of the Local Roads Board for the.....

..... Local Roads Area, hereby give notice that this Board

has an interest in the following land: .....

.....

.....

The Board's interest in the land is as follows:

1. The taxes imposed under the *Local Roads Boards Act* have been unpaid for two years or more.
2. The land and every interest in it will be liable to be forfeited to and vested in the Crown unless all taxes, penalties and prescribed costs due under the *Local Roads Boards Act* are paid.

My address for service is.....

.....

Dated at....., this..... day of.....

19.....

.....

Secretary-Treasurer

**Formule 5***Loi sur les régies des routes locales***AVERTISSEMENT**

Au: Registraire de la division d'enregistrement d.....

.....

Je soussigné(e), .....,

d....., dans .....,

secrétaire-trésorier de la régie des routes locales de la zone de routes locales d....., donne avis par la présente que la régie a un intérêt relatif au bien-fonds suivant :

- L'intérêt que la régie possède relativement au bien-fonds est le suivant :
- 1. L'impôt prévu par la *Loi sur les régies des routes locales* n'a pas été payé pendant au moins deux ans.
  - 2. Le bien-fonds et tout intérêt qui y est relatif peuvent être confisqués et dévolus à la Couronne, à moins que l'intégralité de l'impôt, de la pénalité et des frais prescrits exigibles conformément à la *Loi sur les régies des routes locales* ne soit payée.

Mon adresse aux fins de signification est .....

Fait à ..... le ..... 19.....

.....

Secrétaire-trésorier

O. Reg. 18/91, s. 1, *part.*

Form 6

Local Roads Boards Act

WITHDRAWAL OF CAUTION

To: The Land Registrar for the Land Titles Division of.....

I, ....., of the....., in the....., the Secretary-Treasurer of the Local Roads Board for the..... Local Roads Area, do hereby withdraw the caution which was registered in the Land Registry Office for the Land Titles Division of..... on the..... day of..... 19....., as number..... and which claimed an interest in the land registered in the name of..... as Parcel..... in the Register for.....

Dated at..... this..... day of..... 19.....

.....

Secretary-Treasurer

Formule 6

Loi sur les régies des routes locales

RETRAIT D'AVERTISSEMENT

Au : Registrateur de la division d'enregistrement des droits immobiliers

d.....

Je soussigné(e), ....., d....., dans ..... secrétaire-trésorier de la régie des routes locales de la zone de routes locales d....., retire par la présente l'avertissement qui avait été enregistré au bureau d'enregistrement immobilier de la division d'enregistrement des droits immobiliers d..... le ..... 19..... sous le numéro ..... et selon lequel la régie avait un intérêt relatif au bien-fonds enregistré au nom d..... comme parcelle ..... dans le registre d.....

Fait à ..... le ..... 19.....

.....

Secrétaire-trésorier

O. Reg. 18/91, s. 1, *part.*

Form 7

Local Roads Boards Act

WITHDRAWAL OF CAUTION

To: The Land Registrar for the Registry Division of.....

I, ....., of the....., in the....., the Secretary-Treasurer of the Local Roads Board for the..... Local Roads Area, do hereby withdraw the caution which was registered in the Land Registry Office for the Registry Division of..... on the..... day of..... 19....., as number..... and which claimed an interest in the following land: .....

Dated at..... this..... day of..... 19.....

.....

Secretary-Treasurer

Formule 7

Loi sur les régies des routes locales

RETRAIT D'AVERTISSEMENT

Au : Registrateur de la division d'enregistrement d.....

Je soussigné(e), .....

d....., dans .....,  
secrétaire-trésorier de la régie des routes locales de la zone de routes  
locales d....., retire par la présente  
l'avertissement qui avait été enregistré au bureau d'enregistrement  
immobilier de la division d'enregistrement d.....

le ..... 19....., sous le numéro .....  
et selon lequel la régie avait un intérêt relatif au bien-fonds suivant :

.....  
.....

Fait à ..... le ..... 19.....

.....  
Secrétaire-trésorier

O. Reg. 18/91, s. 1, *part.*

### Form 8

#### Local Roads Boards Act

#### NOTICE OF TAX ARREARS

To: .....

TAKE NOTICE that the land described below and every interest in  
it will be liable to be forfeited to and vested in the Crown unless all  
taxes, penalties and prescribed costs due under the *Local Roads Boards  
Act* in respect of it are paid within twelve months after the date that this  
notice is mailed.

DESCRIPTION OF LAND: .....

.....  
.....

The total amount of taxes, penalties and prescribed costs due is  
\$..... A certified cheque or money order should be made  
payable to the Local Roads Board for the.....  
Local Roads Area and addressed to the person signing below.

Dated at....., this..... day of.....,  
19.....

.....  
Secretary-Treasurer

### Formule 8

#### Loi sur les régies des routes locales

#### AVIS D'ARRIÉRÉS D'IMPÔT

À : .....

SOYEZ AVISÉ que le bien-fonds décrit ci-dessous et tout intérêt qui  
y est relatif peuvent être confisqués et dévolus à la Couronne, à moins que  
l'intégralité de l'impôt, de la pénalité et des frais prescrits exigibles  
conformément à la *Loi sur les régies des routes locales* en ce qui concerne  
le bien-fonds ne soit payée dans les douze mois qui suivent la date de mise  
à la poste du présent avis.

DESCRIPTION DU BIEN-FONDS : .....

.....  
.....

L'intégralité de l'impôt, de la pénalité et des frais prescrits qui sont

exigibles est de .....\$. Un chèque visé ou un mandat devrait être  
fait à l'ordre de la régie des routes locales de la zone de routes locales

d..... et adressé à personne dont la signature est  
apposée ci-dessous.

Fait à ..... le ..... 19.....

.....  
Secrétaire-trésorier

O. Reg. 18/91, s. 1, *part.*

7/91

#### REAL ESTATE AND BUSINESS BROKERS ACT

##### O. Reg. 19/91.

General.

Made—January 21st, 1991.

Filed—January 24th, 1991.

#### REGULATION TO AMEND REGULATION 891 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE REAL ESTATE AND BUSINESS BROKERS ACT

1.—(1) Paragraph 3 of section 11 of Regulation 891 of Revised  
Regulations of Ontario, 1980, as remade by section 1 of Ontario  
Regulation 719/88, is revoked and the following substituted:

3. Upon application for registration as a salesman or renewal  
thereof ..... \$100

(2) Paragraphs 3a and 3b of section 11, as made by section 1 of  
Ontario Regulation 719/88, are revoked.

7/91

#### MOTOR VEHICLE DEALERS ACT

##### O. Reg. 20/91.

General.

Made—January 21st, 1991.

Filed—January 24th, 1991.

#### REGULATION TO AMEND REGULATION 665 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE MOTOR VEHICLE DEALERS ACT

1.—(1) Paragraph 3 of section 2 of Regulation 665 of Revised  
Regulations of Ontario, 1980, as remade by section 1 of Ontario  
Regulation 718/88, is revoked and the following substituted:

3. Upon application for registration as a salesman or renewal  
thereof ..... \$100

(2) Paragraphs 4 and 5 of section 2 as made by section 1 of  
Ontario Regulation 718/88, are revoked.

7/91

## INTERPRETATION ACT

**O. Reg. 21/91.**

Fees Payable under Various Acts.

Made—January 17th, 1991.

Filed—January 24th, 1991.

**REGULATION TO AMEND  
REGULATION 537 OF REVISED REGULATIONS  
OF ONTARIO, 1980  
MADE UNDER THE  
INTERPRETATION ACT**

**1. Regulation 537 of Revised Regulations of Ontario, 1980 is amended by renumbering section 1 as section 1a and by adding the following section:**

## AGRICULTURAL AND HORTICULTURAL ORGANIZATIONS ACT, 1988

**1.** The following fees shall be paid for the incorporation of an organization under the *Agricultural and Horticultural Organizations Act, 1988*:

1. \$100 for agricultural associations.
2. \$25 for agricultural societies.
3. \$25 for horticultural societies. O. Reg. 21/91, s. 1, *part*.

7/91

## CONSERVATION AUTHORITIES ACT

**O. Reg. 22/91.**

Fill, Construction and Alteration to Waterways — Maitland Valley Conservation Authority.

Made—August 15th, 1990.

Approved—January 21st, 1991.

Filed—January 25th, 1991.

**REGULATION MADE UNDER THE  
CONSERVATION AUTHORITIES ACT**

**FILL, CONSTRUCTION AND ALTERATION TO  
WATERWAYS — MAITLAND VALLEY  
CONSERVATION AUTHORITY**

## INTERPRETATION

**1.** In this Regulation,

“Authority” means the Maitland Valley Conservation Authority;

“building” means a building or structure of any kind;

“drainage area” means, for a point, the area which contributes runoff to that point;

“fill” means earth, sand, gravel, building materials, storage materials, rubble, rubbish, garbage or any other material whether similar to or different from any of the aforementioned materials, whether originating on the site or elsewhere, used or capable of being used to raise, lower or in any way affect the contours of the ground;

“fill line” means any line designated as such on the maps referred to in the schedules;

“regional storm” means,

- (a) for the Nine Mile River watershed, the rainfall, snowmelt or the combination of rainfall and snowmelt which has the

probability of occurrence of 1 per cent during any given year,

- (b) for rivers, streams and watercourses other than the Nine Mile River watershed, a storm producing in a twelve-hour period, on a drainage area of,
  - (i) twenty-five square kilometres or less, a rainfall that has the distribution set out in Table 1, or
  - (ii) more than twenty-five square kilometres, a rainfall such that the number of millimetres of rain referred to in each case in Table 1 shall be modified by the percentage amount shown in Column 2 of Table 2 opposite the size of the drainage area set out opposite thereto in Column 1 of Table 2:

TABLE 1

73 mm of rain in the first 36 hours
6 mm of rain in the 37th hour
4 mm of rain in the 38th hour
6 mm of rain in the 39th hour
13 mm of rain in the 40th hour
17 mm of rain in the 41st hour
13 mm of rain in the 42nd hour
23 mm of rain in the 43rd hour
13 mm of rain in the 44th hour
13 mm of rain in the 45th hour
53 mm of rain in the 46th hour
38 mm of rain in the 47th hour
13 mm of rain in the 48th hour

TABLE 2

COLUMN 1	COLUMN 2
Drainage Area (square kilometres)	Percentage
26 to 45 both inclusive	99.2
46 to 65 both inclusive	98.2
66 to 90 both inclusive	97.1
91 to 115 both inclusive	96.3
116 to 140 both inclusive	95.4
141 to 165 both inclusive	94.8
166 to 195 both inclusive	94.2
196 to 220 both inclusive	93.5
221 to 245 both inclusive	92.7

Table 2 (cont)

COLUMN 1	COLUMN 2
Drainage Area (square kilometres)	Percentage
246 to 270 both inclusive	92.0
271 to 450 both inclusive	89.4
451 to 575 both inclusive	86.7
576 to 700 both inclusive	84.0
701 to 850 both inclusive	82.4
851 to 1000 both inclusive	80.8
1001 to 1200 both inclusive	79.3
1201 to 1500 both inclusive	76.6
1501 to 1700 both inclusive	74.4
1701 to 2000 both inclusive	73.3
2001 to 2200 both inclusive	71.7
2201 to 2500 both inclusive	70.2
2501 to 2700 both inclusive	69.0
2701 to 4500 both inclusive	64.4
4501 to 6000 both inclusive	61.4
6001 to 7000 both inclusive	58.9
7001 to 8000 both inclusive	57.4

“river”, “lake”, “creek”, “stream” or “watercourse” means any river, lake, creek, stream or watercourse under the jurisdiction of the Authority. O. Reg. 22/91, s. 1.

2. The areas described in the Schedule are areas in which, in the opinion of the Authority, the control of flooding or pollution or the conservation of land may be affected by the placing or dumping of fill. O. Reg. 22/91, s. 2.

3. Subject to section 4, no person shall,

- construct any building or permit any building to be constructed in or on a pond or swamp or in any area susceptible to flooding during a regional storm;
- place or dump fill of any kind or permit fill to be placed or dumped in any area described in the Schedule whether the fill is already located in or upon the area or brought to or on the area from some other place; or
- straighten, change, divert or interfere in any way with the existing channel of a river, lake, creek, stream or watercourse. O. Reg. 22/91, s. 3.

4. Subject to the *Ontario Water Resources Act* or to any private interest, the Authority may permit in writing the construction of any building or the placing or dumping of fill or the straightening, changing, diverting or interfering with the existing channel of a river, lake, creek, stream or watercourse to which section 3 applies if, in the opinion of the Authority, the site of the building or the placing or dumping of fill or the straightening, changing, diverting or interfering with the existing channel will not affect the control of flooding or pollution or the conservation of land. O. Reg. 22/91, s. 4.

5.—(1) A signed application for permission to construct a building shall be filed with the Authority and shall include,

- four copies of a plan of the property showing the proposed location of the building, its elevation and the proposed final grade plan;
- four copies of a complete description of the type of building to be constructed, including drainage details and the method of construction;
- four copies of a statement of the dates between which the construction will be carried out; and
- four copies of a statement of the proposed use of the building following completion of the construction.

(2) A signed application for permission to place or dump fill shall be filed with the Authority and shall include,

- four copies of a plan of the property on which the fill is to be placed, showing the proposed location of filling, the depth to which it is proposed to fill and the proposed final grade of the land when filling is completed;
- four copies of a complete description of the type of fill proposed to be placed or dumped and the method of placing or dumping the fill;
- four copies of a statement of the dates between which the placing or dumping will be carried out; and
- four copies of a statement of the proposed use of the land following completion of placing or dumping.

(3) A signed application for permission to straighten, change, divert or interfere in any way with the existing channel of a river, lake, creek, stream or water course, shall be filed with the Authority and shall include,

- four copies of a plan on which shall be shown in plan view and cross section the details of such straightening, change, diversion or interference;
- four copies of a description of the protective measures to be undertaken and the method to be used to carry out such straightening, change, diversion or interference;
- four copies of a statement of the dates between which the straightening, changing, diverting or interfering will be carried out; and
- four copies of a statement of the purpose of the proposed work. O. Reg. 22/91, s. 5.

6. The Authority may, at any time, withdraw any permission given under section 4 if, in the opinion of the Authority, the representations contained in the application for permission are not carried out. O. Reg. 22/91, s. 6.

7. Members of the staff of the Authority are appointed as officers to enforce this Regulation. O. Reg. 22/91, s. 7.

8. **Ontario Regulations 503/81 and 313/84 are revoked.**

## Schedule 1

### Introduction

In the counties of Huron, Perth and Bruce, as shown delineated by fill lines indicated on Maps MV1-1-56, 58-67, 69-120, identified by a stamp of the Registrar of Regulations dated the 4th day of July, 1990, and filed in the Southwestern Regional Office of the Ministry of Natural Resources at London, more particularly described as follows:

## TOWNSHIP OF COLBORNE

In the Township of Colborne, County of Huron, and being composed of part or all of the following lots:

Lot	Concession	Block	Registered Plan
1-8	I W.D. (Western Division)		
1-4, 7, 8	II W.D. (Western Division)		
2-6	III W.D. (Western Division)		
1-3, 7, 8	IV W.D. (Western Division)		
1	V W.D. (Western Division)		
2	VI W.D. (Western Division)		
2	VII W.D. (Western Division)		
4, 9-11	VIII W.D. (Western Division)		
2, 4-11	IX W.D. (Western Division)		
2-11	X W.D. (Western Division)		
1-11	XI W.D. (Western Division)		
3-11	XII W.D. (Western Division)		
10, 11	XIII W.D. (Western Division)		
1-3, 6, 11-14	I E.D. (Eastern Division)		
1, 2, 6, 7, 11, 14, 15	II E.D. (Eastern Division)		
2-7, 11-15	III E.D. (Eastern Division)		
1, 3-5, 10-12	IV E.D. (Eastern Division)		
3-5, 10-12	V E.D. (Eastern Division)		
2, 3-16	VI E.D. (Eastern Division)		
1-17	VII E.D. (Eastern Division)		
8-11, 16	VIII E.D. (Eastern Division)		
5, 6, 9, 10	IX E.D. (Eastern Division)		
2, 3	X E.D. (Eastern Division)		

Lot	Concession	Block	Registered Plan
1	XI E.D. (Eastern Division)		
6-31	Maitland		
1, 4-6, 9, 11-13, 15-19	Broken Front		
3-6, 8, 9, 11, 12, 15-19	Lake Road West		
2-8, 10-12, 16	Lake Road East		
		A-G	
1-9, 13-15, 25-35, 38-47, 63-69			R.P. 180
Brick Yard			R.P. 180
		A,B,H	R.P. 180
1-21			R.P. 205
		A, B	R.P. 206
5-9			R.P. 546
1-5, 8-12			R.P. 564
A			R.P. 565
5-6			R.P. 567
7			R.P. 569
1-4, 26			R.P. 570
16-18, 54			R.P. 571
4-8			R.P. 576
13, 17-20, 31			R.P. 578
		40	R.P. 578

## TOWNSHIP OF ASHFIELD

In the Township of Ashfield, County of Huron, and being composed of part or all of the following lots:

Lot	Concession	Block	Registered Plan
1	I W.D. (Western Division)		
1, 2	II W.D. (Western Division)		
1-3	III W.D. (Western Division)		
1-4	V W.D. (Western Division)		
1-5	VI W.D. (Western Division)		

Lot	Concession	Block	Registered Plan
5-7	VII W.D. (Western Division)		
1-5	VIII W.D. (Western Division)		
1-9	IX W.D. (Western Division)		
1, 2, 7, 8, 10, 11	X W.D. (Western Division)		
1-4	XI W.D. (Western Division)		
2-4, 11-14	XII W.D. (Western Division)		
4-8, 10-16	XIII W.D. (Western Division)		
7-17	XIV W.D. (Western Division)		
1-12	I E.D. (Eastern Division)		
1-12	II E.D. (Eastern Division)		
1-6, 9-12	III E.D. (Eastern Division)		
1-12	IV E.D. (Eastern Division)		
1, 8-11	V E.D. (Eastern Division)		
1, 8-12	VI E.D. (Eastern Division)		
1-6, 8-12	VII E.D. (Eastern Division)		
1-3, 6-8, 10-12	VIII E.D. (Eastern Division)		
3-5, 10-12	IX E.D. (Eastern Division)		
1-5, 9-11	X E.D. (Eastern Division)		
6-12	XI E.D. (Eastern Division)		
5-9, 11, 12	XII E.D. (Eastern Division)		
10-12	XIII E.D. (Eastern Division)		
11, 12	XIV E.D. (Eastern Division)		
2, 5, 6	Front S.T.P. (South of Town Plan)		
2, 4, 6-17, 19-23, 26-35, 37-45	Front N.T.P. (North of Town Plan)		

Lot	Concession	Block	Registered Plan
7, 26-30, 35-40, (W. of Huron St.)			R.P. 136
5, 6, 25-30, 36-45 (E. of Huron St.)			R.P. 136
5, 6, 28-30, 39-46 (W. of Colborne St.)			R.P. 136
5-7, 28, 29, 31-45 (E. of Colborne St.)			R.P. 136
6-8, 32-42 (W. of Arthur St.)			R.P. 136
7, 8, 32-42 (E. of Arthur St.)			R.P. 136
4-8, 32-42 (W. of Sydenham St.)			R.P. 136
4, 5, 33-42 (E. of Sydenham St.)			R.P. 136
4, 5, 33-42 (W. of Wellington St.)			R.P. 136
4, 5, 33-43 (E. of Wellington St.)			R.P. 136
1-6 (N. of Melbourne St.)			R.P. 136
1-7 (S. of Melbourne St.)			R.P. 136
1-9 (N. of Victoria St.)			R.P. 136
2 (S. of Ashfield St.)			R.P. 136
1-3 (N. of South St.)			R.P. 136
8, 9 (W. of London Rd.)			R.P. 136
9, 10 (E. of London Rd.)			R.P. 136
6, 7 (N. of Melbourne St.)			R.P. 139
1, 2, 11-13, 42-43			R.P. 209
5-9			R.P. 280
1-34			R.P. 579
14-35			R.P. 580
28-36			R.P. 581
		E, Ravine	R.P. 581
		A	R.P. 587
		C	R.P. 589

Lot	Concession	Block	Registered Plan
24			R.P. 590
10			R.P. 591
		A, B	R.P. 592

## TOWNSHIP OF WEST WAWANOSH

In the Township of West Wawanosh, County of Huron, and being composed of part or all of the following lots:

Lot	Concession	Block	Registered Plan
13, 15-21, 24-27	I		
13-21, 23, 24, 26, 27	II		
13, 15-20, 24-27	III		
13-20, 23-27	IV		
13-27	V		
13-27	VI		
13-27	VII		
14-17, 20-27	VIII		
13-17, 20-27	IX		
13-25, 27	X		
13-25	XI		
13-27	XII		
13-27	XIII		
13-27	XIV		
28			R.P. 301
29-35, 40-43			R.P. 302

## TOWNSHIP OF EAST WAWANOSH

In the Township of East Wawanosh, County of Huron, and being composed of part or all of the following lots:

Lot	Concession	Block	Registered Plan
29-35, 37-41	I		
28-39	II		
28-41	III		
28-32, 34-42	IV		
28, 29, 31-37, 39-41	V		
28-37, 40, 41	VI		

Lot	Concession	Block	Registered Plan
30-34, 37-42	VII		
29-35, 37-42	VIII		
28-39, 42	IX		
30-39, 42	X		
29-32, 34-42	XI		
28-42	XII		
28-42	XIII		
28-42	XIV		
15			R.P. 500
		A	R.P. 500

## TOWNSHIP OF GREY

In the Township of Grey, County of Huron, and being composed of part or all of the following lots:

Lot	Concession	Block	Registered Plan
1-70	I		
1-8, 11-33	II		
2, 4-35	III		
1-12, 14-16, 18-20, 22-35	IV		
1-9, 11-35	V		
4-9, 12-35	VI		
4, 5, 8, 9, 15-22, 25-35	VII		
6, 7, 10-13, 17, 18, 20-26, 28-35	VIII		
4-7, 10-17, 19-22, 24, 26-29, 31-35	IX		
2-4, 6, 10-14, 17-34	X		
2-27, 30-35	XI		
1-15, 17-25, 27-35	XII		
1-22, 24, 25, 28, 32-35	XIII		
1-11, 14-29, 31, 32, 34, 35	XIV		
6-19, 21-25, 28-30, 34, 35	XV		
1-4, 11-15, 17-20, 22-35	XVI		
2-4, 6, 7, 15-35	XVII		

Lot	Concession	Block	Registered Plan
2-7, 9, 17, 18, 21-27	XVIII		
240, 241, Mill Reserve			R.P. 207
Park Lots 6, 7, 18, 19, 25, 34, 35, 55, 67, 68, 72			R.P. 207
		B	R.P. 207
3, 4, 68-99			R.P. 261

## TOWNSHIP OF HOWICK

In the Township of Howick, County of Huron, and being composed of part or all of the following lots:

Lot	Concession	Block	Registered Plan
6-13, 15-19, 21-32	I		
3-13, 15-19, 22, 23, 25-32	II		
1-15, 17-25, 28, 29, 31, 32	III		
1-3, 7-20, 22, 23, 28-32	IV		
1-15, 18, 20-24, 27-30, 32	V		
1-4, 10-19, 22-32	VI		
1-3, 7, 8, 12-14, 16, 17, 22-33	VII		
1-4, 7-15, 17, 22-25, 27-33	VIII		
1, 3, 4, 6, 7, 9-13, 15-27, 32, 33	IX		
1-4, 6-9, 12-22, 24-28, 31-33	X		
1-9, 11, 12, 14-24, 26-29, 31-33	XI		
1, 2, 4-8, 13-20, 24-28, 30-31	XII		
1-14, 16-20, 24-32	XIII		
1-10, 12-20, 22-33	XIV		
1-19, 21-33	XV		
1-6, 8-11, 16-33	XVI		
4-7, 10-13, 17-22, 24-27, 30, 31	XVII		

Lot	Concession	Block	Registered Plan
6, 7, 12, 13, 19-21	XVIII		
11-25, 27-37	A		
11-25, 27-37	B		
11-17, 19-40	C		
17, 24 (N. of Victoria St.)			R.P. 243
1-7 (S. of Victoria St.)			R.P. 243
1-6 (N. of Albert St.)			R.P. 243
1-4 (S. of Albert St.)			R.P. 243
1-4 (N. of Adelaide St.)			R.P. 243
1-4 (S. of Adelaide St.)			R.P. 243
1-4 (N. of Mary St.)			R.P. 243
1-4 (S. of Mary St.)			R.P. 243
1-4 (N. of Louisa St.)			R.P. 243
9 (N. of Alfred St.)			R.P. 243
9 (N. of Helena St.)			R.P. 243
12 (S. of Helena St.)			R.P. 243
11 (N. of Caroline St.)			R.P. 243
10 (S. of Caroline St.)			R.P. 243
9, 16 (N. of South St.)			R.P. 243
Mill Reserve			R.P. 243
1-13, A, B			R.P. 244
1-13			R.P. 245
1, 2			R.P. 246
8-10, 24-30			R.P. 247
		A, C	R.P. 247
14-18, 24-27, 34-38, 61-65, 73-76, 84, 85, 101-106, 113-118, 126-130, 149-154, 159-164, 167-172, 203-228, 261-272, 274-284			R.P. 276

Lot	Concession	Block	Registered Plan
Park Lots 5-7, 9, 12, 13, 15, 18-21			R.P. 276
Mill Race, Reserve			R.P. 276
309, 310			R.P. 277
1, 10, 13-20, 28-30, 32, 34-36			R.P. 282
14-18			R.P. 298
1-4, 25-29 (S. of Fralick St.)			R.P. 316
1-6, 10-15 (N. of Howick St.)			R.P. 316
1-10, 16, 17 (S. of Howick St.)			R.P. 316
11, 13, 29 (N. of Playford St.)			R.P. 316
14-24 (S. of Playford St.)			R.P. 316
16-24 (N. of Gibson St.)			R.P. 316
1-5 (S. of Gibson St.)			R.P. 316
7-12 (S. of Mill St.)			R.P. 316
9-15 (N. of Queen St.)			R.P. 316
7-9 (N. of Ann St.)			R.P. 316
9-11 (W. of Marietta St.)			R.P. 316
7-9 (W. of Centre St.)			R.P. 316
Park Lots 25-37			R.P. 316
		A-D	R.P. 316
14-16 (S. of Playford St.)			R.P. 317
22, 37-43, 51-58, 61, 62			R.P. 317

## TOWN OF LISTOWEL

In the Town of Listowel, County of Perth, extending upstream from the western boundary of the Town, being the line between lots 30 and 31 of Concession I in the Township of Elma, to the northeasterly boundary of the Town, being the line between the north half of Lot 22 of Concession I in the Township of Wallace.

## VILLAGE OF LUCKNOW

In the Village of Lucknow, in the County of Bruce and the County of Huron, extending upstream from the southerly boundary of the Village,

being the line between the north half and south half of Lot 13 of Concession XIV in the Township of West Wawanosh, in the County of Huron, to the northerly boundary of the Village, being the line between the north half and south half of lots 57 to 61 in Concession I in the Township of Kinloss, in the County of Bruce. O. Reg. 22/91, Sched. I.

MAITLAND VALLEY CONSERVATION AUTHORITY:

BRUCE MCCALL  
Chairman  
MARLENE SHIELL  
Secretary-Treasurer

Dated at Wroxeter, this 15th day of August, 1990.

## PETROLEUM RESOURCES ACT

## O. Reg. 23/91.

Spacing Units —

Mersea 6-23-VII Pool.

Made—January 21st, 1991.

Filed—January 25th, 1991.

REGULATION MADE UNDER THE  
PETROLEUM RESOURCES ACTSPACING UNITS —  
MERSEA 6-23-VII POOL

1. In this Regulation, "Plan" means the plan filed in the Regional Office of the Ministry of Natural Resources at London as Plan No. S.W.R. 90-7, and identified by the stamp of the Registrar of Regulations dated the 25th day of October, 1990. O. Reg. 23/91, s. 1.

2. This Regulation applies only to wells drilled into a geological formation of Ordovician or Cambrian age. O. Reg. 23/91, s. 2.

3. The areas shown outlined in green on the Plan, of approximately 20.24 hectares each unless otherwise shown on the Plan, are designated as spacing units for the purpose of this Regulation, those areas being in the Township of Mersea in the County of Essex and being parts of,

- (a) the south half of Lot 18 and the south quarters of lots 19 and 20 in Concession VIII;
- (b) the north quarter of Lot 18, the north half of lots 19 and 20 and the north three-quarters of Lot 21 in Concession VII; and
- (c) those parts of lots 22 and 23 in Concession VII and lots 219, 220 and 221 in NTR Concession, bounded on the west by the west limit of Lot 22, on the east by the east limit of Lot 23 and its southerly prolongation, on the south by a line drawn due east from the easternmost point of the north limit of the road allowance between concessions VI and VII, and on the north by a line drawn due east from the southeast angle of the north quarter of Lot 21 in Concession VII. O. Reg. 23/91, s. 3.

4.—(1) In this section, "target area" means that part of a spacing unit that is no closer than 106.68 metres to any boundary of the spacing unit.

(2) No person shall,

- (a) produce from more than one well in a spacing unit;
- (b) bore or drill a well in a spacing unit outside the target area unless topographical, geological or other conditions make boring or drilling a well within the target area unfeasible; or

- (c) produce oil or gas from a well in a spacing unit unless all the interests in the oil and gas in the spacing unit have been joined for the purpose of producing from the well. O. Reg. 23/91, s. 4.

**5. Ontario Regulation 136/90 is revoked.**

7/91

**GAME AND FISH ACT**

**O. Reg. 24/91.**

Hunting Licences.

Made—January 21st, 1991.

Filed—January 28th, 1991.

**REGULATION TO AMEND  
REGULATION 420 OF REVISED REGULATIONS  
OF ONTARIO, 1980  
MADE UNDER THE  
GAME AND FISH ACT**

1. Section 2a of Regulation 420 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 138/83 and amended by section 2 of Ontario Regulation 186/84 and section 2 of Ontario Regulation 499/87, is further amended by adding the following subsection:

(9) Only one tag in Form 27 shall be issued for each property described in subclause (2) (b) (ii). O. Reg. 24/91, s. 1.

2. Section 16a of the Regulation, as remade by section 1 of Ontario Regulation 27/87 and amended by section 2 of Ontario Regulation 132/87, section 3 of Ontario Regulation 499/87, section 1 of Ontario Regulation 629/87, section 1 of Ontario Regulation 554/88 and section 1 of Ontario Regulation 261/89, is further amended by adding the following subsection:

(3a) Only one certificate in Form 32 shall be issued for each property described in subclause (2) (b) (i). O. Reg. 24/91, s. 2.

3. Form 21 of the Regulation, as remade by section 3 of Ontario Regulation 127/83, is amended by striking out,

“☐ certificate issued by a hunting examiner in Ontario

dated \_\_\_\_\_  
(year, month, day)

No. \_\_\_\_\_ and filed with this application;”

and substituting,

“☐ certificate issued by a hunting examiner in Ontario

dated .....  
(year, month, day)

No.....;”

7/91

**GAME AND FISH ACT**

**O. Reg. 25/91.**

Sale of Bass and Trout and Fishing Preserves.

Made—January 21st, 1991.

Filed—January 28th, 1991.

**REGULATION TO AMEND  
REGULATION 433 OF REVISED REGULATIONS  
OF ONTARIO, 1980  
MADE UNDER THE  
GAME AND FISH ACT**

1. Section 17 of Regulation 433 of Revised Regulations of Ontario, 1980, as made by section 4 of Ontario Regulation 619/89, is revoked and the following substituted:

17.—(1) A licence issued to transport and stock fish shall be in Form 8.

(2) A licence issued in Form 8 expires on the 31st day of December of the year in which it was issued, unless a date of expiry is set out on the licence.

(3) Where a date of expiry is set out on the licence, the licence expires on that date. O. Reg. 25/91, s. 1.

2. Form 8 of the Regulation, as made by section 7 of Ontario Regulation 619/89, is revoked and the following substituted:

## Form 8

## Game and Fish Act

## LICENCE TO TRANSPORT AND STOCK FISH

Ministry of  
Natural Resources

Under the *Game of Fish Act* and the Regulations, and subject to the limitations of the *Fisheries Act* (Canada) and the Ontario Fisheries Regulations, this licence is granted to:

..... Name	..... Mailing Address	..... Telephone
---------------	--------------------------	--------------------

To Transfer

..... Quantity	..... Species	..... Size	..... Age
-------------------	------------------	---------------	--------------

FROM WATERS OWNED OR LEASED BY:

..... Name	..... Name of hatchery or water	..... Licence Number
---------------	------------------------------------	-------------------------

.....  
Mailing Address

Location of waters

..... County	..... Township	..... Lot	..... Conc.
-----------------	-------------------	--------------	----------------

TO STOCK THE ABOVE MENTIONED FISH IN WATERS KNOWN AS:

..... Name	..... County	..... Township	..... Lot	..... Conc.
---------------	-----------------	-------------------	--------------	----------------

LOCATED AT:

..... Mailing Address	..... Telephone
--------------------------	--------------------

OWNED OR OPERATED BY:

Name .....

Distribute copies to:

- |                              |                        |                      |
|------------------------------|------------------------|----------------------|
| 1. Purchaser/Permittee       | .....<br>Date of Issue | .....<br>Expiry Date |
| 2. Private Hatchery/Supplier |                        |                      |
| 3. District Preparing Permit |                        |                      |

.....  
District Manager

O. Reg. 25/91, s. 2.

**MUNICIPAL ELECTIONS ACT****O. Reg. 26/91.**

Forms.

Made—January 29th, 1991.

Filed—January 31st, 1991.

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**REGULATION TO AMEND  
REGULATION 681 OF REVISED REGULATIONS  
OF ONTARIO, 1980  
MADE UNDER THE  
MUNICIPAL ELECTIONS ACT**

1. Form 28 of Regulation 681 of Revised Regulations of Ontario, 1980, as made by section 2 of Ontario Regulation 409/88, is revoked and the following substituted:

## FORM 28

## NOTICE OF REGISTRATION

## MUNICIPAL ELECTIONS ACT (SECTION 122(1)) PART II

## NAME OF CANDIDATE

☐ Initial Registration☐ Changing Reported Information

Name of candidate (same as will appear on the Nomination Form)		
Permanent Mailing Address		
Business Phone Number	Fax Number	Home Phone Number

## NAME OF OFFICE AND MUNICIPALITY

Name of office for which the candidate is seeking election	Ward Number
Name of Municipality	

## CHIEF FINANCIAL OFFICER

Name (if other than the candidate)		
Mailing Address		
Business Phone Number	Fax Number	Home Phone Number

## AUDITOR (must be appointed if election expenses or contributions exceed \$10,000 and must be licensed under the Public Accountancy Act)

Firm or Individual Accountant		
Contact Person		
Mailing Address		
Business Phone Number	Fax Number	Home Phone Number

## OTHER PERSONS AUTHORIZED TO ACCEPT CONTRIBUTIONS (in addition to candidate)

Name
Mailing Address
Name
Mailing Address

NOTE: This completed form must be filed with the municipal clerk, subsection 122(1), on or before Nomination Day.

**OTHER PERSONS** (cont'd)

Name
Mailing Address
Name
Mailing Address

**CAMPAIGN ACCOUNT**

Name and Address of Financial Institution
Signing Officer
Mailing Address
Signing Officer
Mailing Address
Signing Officer
Mailing Address

**PLACE WHERE CANDIDATE'S RECORDS ARE MAINTAINED** (e.g. office, home)

Name of Place	Contact Person	
Mailing Address		
Business Phone Number	Fax Number	Home Phone Number

**PLACE WHERE COMMUNICATIONS CAN BE SENT** (if different from above)

Name of Place	Contact Person	
Mailing Address		
Business Phone Number	Fax Number	Home Phone Number

**DECLARATION OF CANDIDATE**

I, \_\_\_\_\_  
 Name of candidate (please print)  
 do declare that the information in this Notice of Registration is to the best of my knowledge and belief true and correct.

\_\_\_\_\_  
 Signature of candidate\_\_\_\_\_  
 Date

## FORMULE 28

## AVIS D'INSCRIPTION

LOI SUR LES ÉLECTIONS MUNICIPALES (PARAGRAPHE 122(1)) PARTIE II

## NOM DU CANDIDAT

☐ Inscription initiale☐ Modifications de renseignements

Nom du candidat (tel qu'il figurera sur la formule de déclaration de candidature)		
Adresse postale permanente		
N° de téléphone au travail	N° de télécopieur	N° de téléphone à domicile

## NOM DU POSTE ET DE LA MUNICIPALITÉ

Nom du poste auquel le candidat désire être élu	Quartier n°
Nom de la municipalité	

## DIRECTEUR DES FINANCES

Nom (sauf s'il s'agit du candidat)		
Adresse postale		
N° de téléphone au travail	N° de télécopieur	N° de téléphone à domicile

## VÉRIFICATEUR (il faut nommer un vérificateur autorisé en vertu de la Loi sur la comptabilité publique si les dépenses ou les contributions reliées à la campagne électorale sont supérieures à 10 000 \$)

Cabinet ou vérificateur indépendant		
Personne à contacter		
Adresse postale		
N° de téléphone au travail	N° de télécopieur	N° de téléphone à domicile

## AUTRES PERSONNES AUTORISÉES À ACCEPTER DES CONTRIBUTIONS (en plus du candidat)

Nom
Adresse postale
Nom
Adresse postale

REMARQUE : La présente formule, dûment remplie, doit être déposée auprès du secrétaire municipal, en vertu du paragraphe 122(1), au plus tard le jour de déclaration de candidature.

**AUTRES PERSONNES** (suite)

Nom
Adresse postale
Nom
Adresse postale

**COMPTE DE LA CAMPAGNE ÉLECTORALE**

Nom et adresse de l'institution financière
Signataire autorisé
Adresse postale
Signataire autorisé
Adresse postale
Signataire autorisé
Adresse postale

**LIEU OÙ SONT CONSERVÉS LES DOSSIERS DU CANDIDAT** (c.-à-d. bureau, domicile, etc.)

Nom du lieu	Personne à contacter	
Adresse postale		
N° de téléphone au travail	N° de télécopieur	N° de téléphone à domicile

**LIEU OÙ PEUVENT ÊTRE DIRIGÉES LES COMMUNICATIONS** (si celui-ci diffère du lieu indiqué ci-dessus)

Nom du lieu	Personne à contacter	
Adresse postale		
N° de téléphone au travail	N° de télécopieur	N° de téléphone à domicile

**DÉCLARATION DU CANDIDAT**

Je, soussigné(e) .....  
 Nom du candidat (prière d'écrire en lettres moulées)

déclare qu'au mieux de ma connaissance et de ce que je tiens pour véridique, les renseignements contenus dans le présent avis d'inscription sont exacts.

\_\_\_\_\_  
 Signature du candidat

\_\_\_\_\_  
 Date

2. Form 28A of the Regulation, as made by section 4 of Ontario Regulation 539/88, is revoked.

DAVE COOKE  
Minister of Municipal Affairs

Dated at Toronto, this 29th day of January, 1991.

7/91

## PESTICIDES ACT

O. Reg. 27/91.

General.

Made—February 9th, 1990.

Filed—January 31st, 1991.

### REGULATION TO AMEND REGULATION 751 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE PESTICIDES ACT

1. Clause 1 (m) of Regulation 751 of Revised Regulations of Ontario, 1980, as amended by section 1 of Ontario Regulation 70/84, is further amended by inserting "or" at the end of subclause (viii) and by striking out subclauses (x), (xi), (xii) and (xiii).

2. Section 3 of the Regulation is amended by adding the following subsection:

(3) The Committee shall accept and consider applications for the classification of pesticides from persons registering pesticides under the *Pest Control Products Act* (Canada) or their Canadian agents and shall make recommendations thereon to the Minister. O. Reg. 27/91, s. 2.

3.—(1) Subsection 6 (3) of the Regulation, as remade by section 1 of Ontario Regulation 714/88, is amended by inserting after "Director" in the second line "in writing".

(2) Section 6 of the Regulation, as remade by section 1 of Ontario Regulation 714/88, is amended by adding the following subsection:

(4) The holder of an exterminator's licence shall carry the licence or a legible copy thereof when carrying out an extermination or any other activity authorized by the licence. O. Reg. 27/91, s. 3 (2).

4. Section 9 of the Regulation, as amended by section 2 of Ontario Regulation 161/82, is further amended by adding the following subsection:

(2a) An examiner may designate, in writing, another person to act as a substitute examiner in the place of an examiner for any examination specified in the designation. O. Reg. 27/91, s. 4.

5. Subsection 11 (4) of the Regulation is revoked and the following substituted:

(4) At least one examiner shall be present at a written examination. O. Reg. 27/91, s. 5.

6. Subsection 14 (4) of the Regulation is revoked and the following substituted:

(4) Every applicant whose application is in the process of being considered and every operator shall notify the Director, in writing, of any change in the information furnished in Form 2 or under section 17 within ten days after the effective date of the change. O. Reg. 27/91, s. 6.

7.—(1) Subsection 15 (1) of the Regulation is amended by adding at the end "or a written examination or both".

(2) Subsection 15 (4) of the Regulation, as remade by section 3 of Ontario Regulation 252/81, is revoked and the following substituted:

(4) At least two examiners shall conduct an oral examination for an operator's licence.

(5) At least one examiner shall be present during a written examination for an operator's licence. O. Reg. 27/91, s. 7 (2).

8. Section 18 of the Regulation, as amended by section 4 of Ontario Regulation 252/81, is further amended by adding the following subsection:

(3) Every holder of an operator's licence shall display the licence or a legible copy thereof in a prominent place at each location where the holder carries on business. O. Reg. 27/91, s. 8.

9. Section 20 of the Regulation, as amended by section 1 of Ontario Regulation 223/86, is further amended by adding the following subsections:

(5) A pesticide shall be identified in a Schedule to this Regulation or in *The Ontario Gazette* as a proposed addition to a Schedule by its registration number under the *Pest Control Products Act* (Canada) and by its name.

(6) If the name or other identifying information of a pesticide in a Schedule or in *The Ontario Gazette* does not correspond to the name or other identifying information of the pesticide for the same registration number under the *Pest Control Products Act* (Canada), the pesticide shall be deemed to be the pesticide named under the federal statute for the registration number that appears in the Schedule or *The Ontario Gazette*, as the case may be. O. Reg. 27/91, s. 9.

10. Subsection 21 (2) of the Regulation is revoked and the following substituted:

(2) Subject to subsection (3), no person shall use a pesticide in an extermination except in accordance with the label for that pesticide and this Regulation. O. Reg. 27/91, s. 10.

11. Sections 22 and 23 of the Regulation are revoked and the following substituted:

22. No person shall purchase, acquire, store or use a pesticide unless the person is the holder of a vendor's licence, operator's licence or exterminator's licence authorizing the holder to sell or use the pesticide or a pesticide reformulated from it or is exempt from requiring a vendor's licence, operator's licence or exterminator's licence to sell or use such pesticide or a pesticide reformulated from it. O. Reg. 27/91, s. 11, *part*.

23.—(1) No person shall use water from a well or from a lake, river or other surface water in performing an extermination unless the equipment used in taking the water or in the extermination is equipped with an effective device to prevent back-flow.

(2) No person shall wash any equipment used to perform an extermination in or near a well or in or near a lake, river or other surface water in such a manner that any pesticide may be directly or indirectly discharged into a well or into a lake, river or other surface water. O. Reg. 27/91, s. 11, *part*.

12. Section 26 of the Regulation, as amended by section 6 of Ontario Regulation 252/81, is revoked and the following substituted:

26. Where the original container of a Schedule 1, 2 or 5 pesticide is damaged or broken, the person responsible for the pesticide shall, under the direction of the person who registered the pesticide under the *Pest Control Products Act* (Canada) and to the satisfaction of the

Director, clean up any spillage and decontaminate any area, carrier or commodity that came in contact with the pesticide, and,

- (a) replace the container with a container equivalent to that originally used; or
- (b) dispose of the container and its contents by burying them under fifty centimetres of soil in such a manner that they are not near any watercourse or water table. O. Reg. 27/91, s. 12.

**13. Clause 43 (3) (c) of the Regulation is revoked and the following substituted:**

- (c) post a placard at least 35 centimetres long and 25 centimetres wide at all entrances to the building or vehicle on which the extermination is to be performed and bearing the word "danger" in red letters at least seven centimetres high on a white background and indicating that an extermination is being performed on the premises.

**14. Section 58 of the Regulation is amended by adding the following subsection:**

(2) The holder of a permit for a structural extermination by means of a Schedule 1 pesticide is exempt from subsection 5 (1) of the Act for that extermination unless it is,

- (a) an extermination mentioned in section 32 or 52;
- (b) an extermination for the control of termites; or
- (c) an extermination by means of carbon dioxide or ethylene oxide. O. Reg. 27/91, s. 14.

**15. The Regulation is amended by adding before section 58a the heading "DDT".**

**16. Subsection 67 (1) of the Regulation is amended by striking out "hormone-type herbicide" in the fourth line and substituting "hormone type herbicide or TBA, fenac, picloram or paraquat".**

**17. Section 73 of the Regulation is amended by adding the following subsection:**

(2) An agriculturist who is the holder of a permit for a land extermination by means of a Schedule 1 pesticide on the farm land on which the agriculturist is engaged in agricultural or forestry production is exempt from subsection 5 (1) of the Act for that extermination. O. Reg. 27/91, s. 17.

**18. Subsections 86 (3) and (4) of the Regulation are revoked and the following substituted:**

(3) An applicant for a wholesale vendor's licence or limited wholesale vendor's licence shall submit with the application the name and address of each wholesale outlet to be covered by the licence.

(4) An applicant for a wholesale vendor's licence or limited wholesale vendor's licence shall submit with the application the name and address of at least one person for each wholesale outlet to be covered by the licence, who will be the outlet representative for that wholesale outlet.

(5) An applicant for any class of retail vendor's licence shall submit with the application the name and address of the retail outlet to be covered by the licence.

(6) An applicant for a Class 1 or Class 2 retail vendor's licence shall submit with the application the name and address of at least one person who will be the outlet representative for the retail outlet to be covered by the licence.

(7) Every applicant for any class of vendor's licence whose application is in the process of being considered and every wholesale vendor,

limited wholesale vendor or retail vendor shall notify the Director, in writing, of any change in the information submitted under this section within ten days after the effective date of the change.

(8) For the purposes of this section, an outlet representative is a person who,

- (a) has successfully completed, not more than five years before the person is named an outlet representative and at least every five years thereafter, a course approved by the Director for persons involved in selling pesticides, or otherwise satisfies the Director that the person is qualified to sell pesticides;
- (b) who works full-time at the outlet for which the person is designated outlet representative; and
- (c) is one of,
  - (i) the holder of or the applicant for a vendor's licence for the outlet for which the person is designated outlet representative,
  - (ii) if the licensee or applicant is a partnership, one of the partners,
  - (iii) if the licensee or applicant is a corporation, an officer or director of the corporation, or
  - (iv) an employee of the licensee or applicant.

(9) Every outlet representative shall ensure that all operations of the outlet for which the person is designated are carried out in accordance with the Act and the regulations thereunder.

(10) No person shall sell or offer to sell a pesticide at an outlet for which an outlet representative is not designated.

(11) Subsection (10) does not apply to a sale of a pesticide,

- (a) by a person who is exempted under section 95 or 96 from requiring a retail vendor's licence; or
- (b) at an outlet covered only by a Class 3 retail vendor's licence.

(12) Subsections (4), (6), (10) and (11) shall come into force on the 1st day of April, 1991. O. Reg. 27/91, s. 18.

**19. Section 87 of the Regulation is revoked and the following substituted:**

**87.** A holder of a wholesale vendor's licence or limited wholesale vendor's licence who sells at wholesale from more than one wholesale outlet does not require a licence for each outlet if the holder has met the requirements of subsections 86 (3), (4) and (7). O. Reg. 27/91, s. 19, *part*.

**87a.** Every holder of a wholesale vendor's licence or limited wholesale vendor's licence shall display the licence or a legible copy thereof in a prominent place at each wholesale outlet covered by the licence. O. Reg. 27/91, s. 19, *part*.

**20. Clause 89 (d) of the Regulation is amended by striking out "two ounces" in the seventh line and substituting "120 grams".**

**21. Section 90 of the Regulation is revoked and the following substituted:**

**90.** Every holder of any class of retail vendor's licence shall display the licence or a legible copy thereof in a prominent place in the retail outlet covered by the licence. O. Reg. 27/91, s. 21.

**22. Clause 95 (d) of the Regulation is amended by striking out "four ounces" in the seventh line and substituting "120 grams".**

**23. Sections 98 to 102 of the Regulation are revoked and the following substituted:**

STORAGE

**98.** No person shall store a pesticide in such a manner that the pesticide is likely to come into contact with food or drink intended for human or animal consumption. O. Reg. 27/91, s. 23, *part*.

**99.—**(1) No person shall leave a Schedule 1, 2, 3, 4, 5 or 6 pesticide unsupervised in a vehicle unless the vehicle is located in a place inaccessible to the public or the pesticide is locked in an enclosed part or compartment of the vehicle.

(2) No vendor, operator, exterminator or agriculturist shall leave a Schedule 1, 2, 3, 4, 5 or 6 pesticide unsupervised in a vehicle unless the vehicle displays the words "Chemical Storage Warning—Authorized Persons Only" in clearly visible block letters. O. Reg. 27/91, s. 23, *part*.

**100.** No vendor, operator, exterminator or agriculturist shall store a Schedule 1, 2, 3, 4, 5 or 6 pesticide except,

- (a) in such a manner that the pesticide is not likely to impair the health or safety of any person;
- (b) in an area that is maintained in a clean and orderly manner and with sufficient precautions taken to prevent the pesticide from contaminating any other pesticide stored in the same area, or the natural environment;
- (c) in an area that has a warning sign prominently displayed at the entrances thereof bearing the words "Chemical Storage Warning—Authorized Persons Only" in block letters clearly visible; and
- (d) in an area near which there is prominently displayed a list of emergency telephone numbers, including those of the local fire department, hospital and poison control centre. O. Reg. 27/91, s. 23, *part*.

**101.—**(1) No person shall store a Schedule 1, 2 or 5 pesticide unless,

- (a) the compartment, room or structure in which the pesticide is stored is ventilated to the outside atmosphere;
- (b) a placard is affixed and maintained on the outside of each door leading into the compartment, room or structure in which the pesticide is stored bearing the words "Chemical Storage Warning—Authorized Persons Only" in block letters clearly visible;
- (c) the express permission of the person responsible is required to enter the compartment, room or structure in which the pesticide is stored; and
- (d) where the pesticide is stored outdoors, sufficient security measures are taken so that the express permission of the person responsible is required to have access to the pesticide, and a placard is maintained near the pesticide bearing the words "Chemical Storage Warning—Authorized Persons Only" in block letters clearly visible.

(2) No vendor, operator, exterminator or agriculturist shall store a Schedule 1, 2 or 5 pesticide except in an area,

- (a) that has no floor drain that leads into or drains directly or indirectly into a storm sewer, sanitary sewer or water-course; and
- (b) near which adequate respiratory protection and adequate protective clothing are kept readily available for emergency purposes. O. Reg. 27/91, s. 23, *part*.

**102.—**(1) No vendor, operator, exterminator or agriculturist shall store a Schedule 1 or 5 pesticide except in an area that is used exclusively for the storage of pesticides.

(2) No wholesale vendor or limited wholesale vendor shall store a Schedule 1 or 5 pesticide except in a room or compartment that has a fire resistance rating of not less than one hour and all doors and door frames of which have a fire resistance rating of not less than forty-five minutes. O. Reg. 27/91, s. 23, *part*.

**24.—**(1) Section 104 of the Regulation is amended by striking out "any Schedule 1, 2, 3 or 5" in the second and third lines and substituting "a Schedule 1, 2, 3, 4, 5 or 6".

(2) Clause 104 (c) of the Regulation is amended by striking out "any Schedule 1, 2, 3 or 5" in the first line and substituting "a Schedule 1, 2, 3, 4, 5 or 6".

**25. Section 107 of the Regulation is revoked and the following substituted:**

**107.** No person shall transport or cause or permit the transportation of a quantity of pesticides in excess of 500 litres by a vehicle operated on any highway or road unless the vehicle has a warning sign prominently displayed on and affixed to the outside of the vehicle warning of the presence of pesticides. O. Reg. 27/91, s. 25.

**26. The heading to Form 4 of the Regulation is amended by striking out "PHOSTOXIN" and substituting "ALUMINUM PHOSPHIDE".**

**27. Forms 8 and 9 of the Regulation are revoked and the following substituted:**

Form 8

Pesticides Act

APPLICATION FOR A LIMITED WHOLESALE  
OR  
WHOLESALE VENDOR'S LICENCE

The application must be made out in the name of the corporation, partnership or individual who owns the wholesale business and not merely in the name of the business manager or official representative.

Any individual or corporation may apply alone or together with others for a Limited Wholesale Vendor's Licence or a Wholesale Vendor's Licence.

1. For each applicant who is an individual, complete the following:

Name ..... Telephone .....  
Address ..... Postal Code .....  
Lot ..... Concession .. Township .....

2. For each applicant that is a corporation, complete the following:

Corporation Name ..... Telephone .....  
Address ..... Postal Code .....

Please attach a list of the names, addresses and telephone numbers of all directors and officers of each corporation.

3. For each official representative of the vendor, complete the following:

Name ..... Telephone .....  
Address ..... Postal Code .....

4. A Limited Wholesale Vendor's Licence or a Wholesale Vendor's Licence may cover several stores or wholesale outlets provided the outlets are listed in the application for the licence or in a notice of change of information submitted to the Director.

For each outlet to be covered by the licence applied for, complete the following, including the trade name or business name under which the outlet will operate:

Store Name ..... Telephone .....

Address ..... Postal Code .....

Lot ..... Concession .. Township .....

Outlet Representative ..... Home Tel: .....

Address ..... Postal Code .....

Outlet Representative ..... Home Tel: .....

Address ..... Postal Code .....

Outlet Representative ..... Home Tel: .....

Address ..... Postal Code .....

Application is hereby made for a:

( ) Limited Wholesale Vendor's Licence  
or

( ) Wholesale Vendor's Licence

If there is more than *one* applicant, the applicants carry on or intend to carry on business in partnership or in association, and are all the partners or associates carrying on the business together.

.....  
Date Signature of Applicant  
or Applicant's Official  
Representative

O. Reg. 27/91, s. 27, *part*.

### Form 9

#### *Pesticides Act*

#### APPLICATION FOR A RETAIL VENDOR'S LICENCE

A separate Retail Vendor's Licence is required for each store or retail outlet.

The application must be made out in the name of the corporation, partnership or individual who owns the business at that store and not merely in the name of the store manager or official representative.

Any individual or corporation may apply alone or together with others for a Retail Vendor's Licence.

1. For each applicant who is an individual, complete the following:

Name ..... Telephone .....

Address ..... Postal Code .....

Lot ..... Concession .. Township .....

2. For each applicant that is a corporation, complete the following:

Corporation Name ..... Telephone .....

Address ..... Postal Code .....

Please attach a list of the names, addresses and telephone numbers of all directors and officers of each corporation.

3. For each official representative of the vendor, complete the following:

Name ..... Telephone .....

Address ..... Postal Code .....

4. For the retail outlet to be covered by the Retail Vendor's Licence applied for, complete the following, including the trade name or business name under which the retail outlet will operate:

Store Name ..... Telephone .....

Address ..... Postal Code .....

Lot ..... Concession .. Township .....

5. For the retail outlet to be covered by a Class 1 or 2 Retail Vendor's Licence, complete the following:

Outlet Representative ..... Home Tel: .....

Address ..... Postal Code .....

Outlet Representative ..... Home Tel: .....

Address ..... Postal Code .....

Outlet Representative ..... Home Tel: .....

Address ..... Postal Code .....

Application is hereby made for a Vendor's Licence:

( ) Class 1 Retail

( ) Class 2 Retail

( ) Class 3 Retail

If there is more than *one* applicant, the applicants carry on or intend to carry on business in partnership or in association, and are all the partners or associates carrying on the business together.

.....  
Date Signature of Applicant  
or Applicant's Official  
Representative

O. Reg. 27/91, s. 27, *part*.

7/91

#### HEALTH INSURANCE ACT

#### O. Reg. 28/91.

General.

Made—January 31st, 1991.

Filed—February 1st, 1991.

#### REGULATION TO AMEND REGULATION 452 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE HEALTH INSURANCE ACT

1. Item 8 of Part II of Schedule 4 to Regulation 452 of Revised Regulations of Ontario, 1980 is revoked.

7/91

**MILK ACT****O. Reg. 29/91.**

Milk Producers, Licences, Quotas, Pools and Transportation.

Made—February 1st, 1991.

Filed—February 1st, 1991.

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**REGULATION TO AMEND  
ONTARIO REGULATION 45/82  
MADE UNDER THE  
MILK ACT**

**1. Subsections 5 (1) and (2) of Ontario Regulation 45/82, as remade by section 1 of Ontario Regulation 56/90, are revoked and the following substituted:**

(1) Every producer shall pay licence fees at the rate of \$1.07 for each hectolitre or fraction thereof of milk sold to the marketing board.

O. Reg. 29/91, s. 1, *part*.

**2. Form 1 of the Regulation is amended by inserting after “following” in the tenth line “milk house” and by striking out “Toronto” in the fourteenth line and substituting “Mississauga”.**

**3. This Regulation comes into force on the 1st day of February, 1991.**

THE ONTARIO MILK MARKETING BOARD:

JOHN CORE  
*Chair*H. PARKER  
*Secretary*

Dated at Mississauga, this 1st day of February, 1991.

7/91



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### Information

THE ONTARIO GAZETTE is published each Saturday and **advertisements must be received no later than Thursday 4 p.m., 9 days before publication of the issue in which they should appear.**

Advertisements including the names of any signing officers must be typed or written legibly. Advertising rates are: \$18.60 per 25 mm for a single column and \$39.00 per 25 mm for a double column + 7% G.S.T.

Subscription rate is \$104.00 for 52 weekly issues and the single copy price \$2.25 + 7% G.S.T. payable in advance. All rates are subject to increases without notice.

**Cheques or money orders** should be made payable to THE TREASURER OF ONTARIO and all correspondence, including address changes, should be mailed to:

THE ONTARIO GAZETTE  
5th Floor, 880 Bay Street, Toronto, Ontario M7A 1N8  
Telephone 326-5310  
Toll-Free 1-800-668-9938

### Information

LA GAZETTE DE L'ONTARIO paraît chaque samedi, **et les annonces à y insérer doivent parvenir à ses bureaux le jeudi à 16 h au plus tard, soit au moins neuf jours avant la parution du numéro dans lequel elles figureront.**

Les annonces, ainsi que le nom des signataires autorisés, doivent être dactylographiées ou écrites lisiblement. Les tarifs sont de 18,60 \$ par 25 mm, pour une colonne, et de 39,00 \$ par 25 mm, pour deux colonnes + 7% G.S.T.

Le tarif d'abonnement est de 104,00 \$ pour 52 numéros hebdomadaires, et le tarif au numéro, de 2,25 \$ + 7% G.S.T. (payable à l'avance). Tous les tarifs peuvent être augmentés sans préavis.

**Les chèques ou mandats** doivent être faits à l'ordre DU TRÉSORIER DE L'ONTARIO et toute correspondance, y compris les changements d'adresse, doit être adressée à :

LA GAZETTE DE L'ONTARIO  
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Government  
Publications



# The Ontario Gazette

## La Gazette de l'Ontario

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Samedi, le 23 février 1991

### MOTOR VEHICLE TRANSPORT ACT, 1987 LOI DE 1987 SUR LES TRANSPORTS ROUTIERS

#### MOTOR VEHICLE TRANSPORT ACT, 1987, PART II TRUCK APPLICATIONS:

The following are applications for extra-provincial truck transport operating licences under Part II of the Motor Vehicle Transport Act, 1987, S.C. 1987, Chapter 35. These Applicants have been found to meet the fitness requirements pursuant to Section 8 (2) of that Act and the provincial transport board for Ontario proposes to issue the licences if no objection is served on the Applicant and filed with the Registrar of Motor Vehicles with the prescribed filing fee, within twenty-nine days of this publication.

#### EXTRA-PROVINCIAL APPLICATIONS:

**NOTE:** Where the application is for a licence other than a corridor operating authority, an interested person who serves and files an objection must also provide the Ontario Highway Transport Board with written evidence, within thirty-nine days of this publication that satisfies that Board that, in the absence of evidence to the contrary, the operation of the undertaking in respect of which the licence is sought would likely be detrimental to the public interest.

\* Indicates a person who has applied for licences under both Part II and Part III of the Motor Vehicle Transport Act, 1987.

The following applicants have applied for Authority to offer a transportation service as detailed below for extra-provincial movement, between (00000) POINTS IN ONTARIO and the:

**\*ANDERSON, JAY, D**  
445 OSHAWA BLVD N  
OSHAWA, ONTARIO  
L1G 5T2

**071813272**  
Original

GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (10000) DURHAM R, (14000) HALTON R, (01000) METROPOLITAN TORONTO R, (21000) PEEL R, (27000) YORK R.

**\*BEACH, DOUGLAS, D**  
BOX 46  
MERIGOMISH NS  
B0K 1G0  
SINGLE SOURCE; GENERAL FREIGHT.

**103902053**  
Original

**BERKSHIRE ARMORED CAR SERVICES INC.**  
343 PECKS RD  
PITTSFIELD MA, USA  
01201  
GENERAL FREIGHT.

**104770688**  
Original

**CALGARY GOOSENECK SERVICE LTD**  
238 1830-52 ST SE  
CALGARY, ALBERTA  
T2B 1N1  
GENERAL FREIGHT.

**091386550**  
Amend

**\*CRYSTAL CARTAGE (GUELPH) LTD**  
265 MASSEY RD  
GUELPH, ONTARIO  
N1K 1B2  
GENERAL FREIGHT; TANK.

**094424668**  
Original

**\*DANCYN TRANSPORT INC**  
355 RUE DES PENSEES  
STE MARTHE DU CAP PQ  
G8V 1C3  
SINGLE SOURCE.

**101523094**  
Original

**\*GORDON, ROBERT, W**  
59 VICTORIA ST E AP2 BX283  
ALLISTON, ONTARIO  
L0M 1A0  
SINGLE SOURCE; INTERMEDIARY; GENERAL FREIGHT; TANK;  
HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (70000) SIMCOE CO.

**047610616**  
Original

**\*GORDON TYSOSKI & SON TRUCKING LTD**  
L32 C1 PAIPOONGE TWP  
THUNDER BAY RR5, ONTARIO  
P7C 5M9  
SINGLE SOURCE; GENERAL FREIGHT.

**091376464**  
Amend

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<b>*GOULET GRAVEL LTD</b> S6 S1/2 L12 C4 GORHAM TP THUNDER BAY R16, ONTARIO P7B 6B3 GENERAL FREIGHT.	<b>102174281</b> Original	<b>*MARCEL O LALONDE TRUCKING INC</b> L1 HWY 34S, CHARLOTTENBURGH TWP, ALEXANDRIA, ONTARIO. K0C 1A0 SINGLE SOURCE; GENERAL FREIGHT.	<b>094381467</b> Original
<b>*GRAHAM, CLEMENT, E</b> 30 HUMBERLINE DR AP1405 REXDALE, ONTARIO M9W 6K8 GENERAL FREIGHT.	<b>086532514</b> Original	<b>*MASKOU TRANSPORT INC.</b> 2-3010 BOUL LAURIER STE-ROSALIE QUE J0H 1X0 OWNER DRIVER, exempt from Public Interest Test.	<b>104767635</b> Original
<b>*HAROLD B. LEGGE TRANSPORT LIMITED</b> 1258 STARRS POINT ROAD PORT WILLIAM NS B0P 1T0 GENERAL FREIGHT.	<b>047773687</b> Original	<b>NORTHERN NECK TRANSFER INC.</b> ROUTE 4 BOX 1810 KING GEORGE VA, USA 22485 GENERAL FREIGHT.	<b>104821299</b> Original
<b>*HYDE, WILLIAM, E</b> 130 POPLAR LANE HURON HAVEN GODERICH R6, ONTARIO N7A 3Y3 GENERAL FREIGHT.	<b>055641132</b> Original	<b>P. I. &amp; I. MOTOR EXPRESS INC.</b> 908 BROADWAY ST EXT MASURY OH, USA 44438 GENERAL FREIGHT.	<b>104653921</b> Original
<b>*JAFTCO TRANSPORTATION SERVICES INC.</b> 4040 CREDITVIEW UNIT 11 MISSISSAUGA, ONTARIO L5C 3Y8 INTERMEDIARY; GENERAL FREIGHT.	<b>104814118</b> Original	<b>*PARISI CARTAGE LTD</b> 121 BRISBANE RD UN-4 DOWNSVIEW, ONTARIO M3J 2K3 GENERAL FREIGHT.	<b>041211839</b> Amend
<b>*JEDRSZCZYK, WIESLAW</b> 75 STEWART ST AP510 OAKVILLE, ONTARIO L6K 1X7 SINGLE SOURCE; GENERAL FREIGHT.	<b>104701702</b> Original	<b>*PATTISON W, JOHN</b> 91 FIREHOUSE ROAD WALNUT BOTTOM PA, USA 17266 SINGLE SOURCE.	<b>104820912</b> Original
<b>*KALOE, AVTAR, S</b> 63A WATSONS LANE DUNDAS, ONTARIO L9H 1T4 SINGLE SOURCE; GENERAL FREIGHT.	<b>082331786</b> Original	<b>*PENNSYLVANIA TRUCK LINES INC</b> 308 E LANCASTER AVE WYNNEWOOD PA, USA 19096 GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee only maintains a place or places of business in locations other than the Province of Ontario.	<b>104654641</b> Original
<b>*LA COMPAGNIE DONALD LAVOIE INC.</b> 5705 DE LA PRUCHIERE CHARLESBOURG QC G2K 1T3 OWNER DRIVER, exempt from Public Interest Test.	<b>089777363</b> Original	<b>*PROKOP, GEORGE, J</b> 404 YONGE CT THUNDER BAY, ONTARIO P7E 6G4 GENERAL FREIGHT.	<b>029786731</b> Original
<b>*LECLERC, GERALD, J</b> 1374 BARTON ST WINONA, ONTARIO L0R 2L0 SINGLE SOURCE.	<b>028958178</b> Original	<b>*R.A.M. TRUCKING INC.</b> 3819-3A ST NE CALGARY AB T2E 6S7 GENERAL FREIGHT.	<b>104656843</b> Original
<b>*LEWIS ENTERPRISES LTD</b> 57 FRONTENAC DR. MONCTON, NEW BRUNSWICK E1A 2P5 GENERAL FREIGHT.	<b>091053976</b> Original	<b>*ROBERTSON, ANDREW, A</b> L10 C1 CARLING TP BX6 NOBEL, ONTARIO P0G 1G0 SINGLE SOURCE; GENERAL FREIGHT.	<b>041489493</b> Original
<b>*LINTON, WAYNE, GORDON</b> L22 C9 HALD ROSENEATH R4, ONTARIO K0K 2X0 SINGLE SOURCE; GENERAL FREIGHT; TANK.	<b>036741070</b> Original	<b>*SAJJAN, GURDIP, SINGH</b> 67 MANITOU CR BRAMALEA, ONTARIO L6S 2Z6 OWNER DRIVER, exempt from Public Interest Test.	<b>089704069</b> Original
<b>LYONS BROOK TRUCKING LIMITED</b> RR2 LYONS BROOK, PICTOU CTY, PICTOU NS B0K 1H0 SINGLE SOURCE; GENERAL FREIGHT.	<b>099728303</b> Original	<b>*SAVOIE, LOUIS</b> 3605 KARIYA DR AP1103 MISSISSAUGA, ONTARIO L5B 3J4 SINGLE SOURCE; GENERAL FREIGHT.	<b>057058257</b> Original
<b>*MAINVILLE, PIERRE, P</b> 1898 BELCOURT BLVD ORLEANS, ONTARIO K1C 1M5 SINGLE SOURCE; GENERAL FREIGHT.	<b>056152973</b> Original		

<b>*SILANDER, BARRY, ANTON</b> 33 PALM CREST LAKEVIEW T CT FORT FRANCES, ONTARIO P9A 3M3 GENERAL FREIGHT.	<b>022410522</b> Amend	<b>*2644-0677 QUEBEC INC.</b> 516 CHEMIN BELLEVUE EST CAP ST-IGNANE G0R 1J0 OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT.	<b>104739925</b> Original
<b>THEODORE ROSSI TRUCKING CO. INC.</b> 9 SOUTH VINE ST BOX332 BARRE VT, USA 05641 GENERAL FREIGHT.	<b>104316861</b> Original	<b>*2644-5304 QUEBEC INC.</b> 143 PRINCIPALE ST-EUPHEMIE QUEBEC G0R 2X0 SINGLE SOURCE.	<b>104794717</b> Original
<b>*TRANSPORT J.A.D. INC.</b> 939 BAIE DES CEDRES CHAMBORD QUEBEC G0W 1G0 SINGLE SOURCE; GENERAL FREIGHT.	<b>097827820</b> Original	<b>*2738-4197 QUEBEC INC.</b> 4343 GARAND ST LAURENT PQ H4R 2B4 GENERAL FREIGHT.	<b>104776146</b> Original
<b>*TRANSPORT MARCEL PILON INC.</b> 1033 DESBIENS BELLEFEUILLE QUEBEC J0R 1A0 SINGLE SOURCE.	<b>103512468</b> Original	<b>*2739-7272 QUEBEC INC.</b> 2 ST JACQUES MONTMAGNY QUEBEC G5V 3C4 SINGLE SOURCE.	<b>104734211</b> Original
<b>*TRANSPORT PAUZE-RIOPEL INC.</b> 141 RUE BEAUPRE L ASSOMPTION QC J0K 1G0 SINGLE SOURCE.	<b>104787775</b> Original	<b>*2759-9505 QUEBEC INC.</b> 933 RUE TRUCHON ST FELICIEN QUEBEC G8K 1J8 SINGLE SOURCE; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee only maintains a place or places of business in locations other than the Province of Ontario.	<b>104775985</b> Original
<b>*TRANSPORT P.Y.L. INC.</b> 1236 BOUL DES SUCRERIES PLESSISVILLE QC G6L 2Y2 SINGLE SOURCE; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee only maintains a place or places of business in locations other than the Province of Ontario.	<b>083977522</b> Original	<b>*2844-3950 QUEBEC INC.</b> 2080 3RD CONCESSION ELGIN QUEBEC J0S 1A0 GENERAL FREIGHT.	<b>104734794</b> Original
<b>*TRANSPORT RABEL INC.</b> 26 DELORME ST CONSTANT QUEBEC J5A 1Y9 OWNER DRIVER, exempt from Public Interest Test.	<b>103968318</b> Original	<b>*2846-0103 QUEBEC INC.</b> 780 87E RUE EST ST GEORGES QUEBEC G5Y 5Y2 SINGLE SOURCE; GENERAL FREIGHT.	<b>104775518</b> Original
<b>*TRANSPORT ROUL-BEC LTEE</b> 2390 BADUAN ST BX817 STN A JONQUIERE, QUEBEC G7X 7W6 GENERAL FREIGHT.	<b>099216948</b> Original	<b>*766234 ONTARIO INC</b> 98 CHILTON DR STONE CREEK, ONTARIO L8J 1M5 SINGLE SOURCE; GENERAL FREIGHT.	<b>094123454</b> Original
<b>*WESSEL, WILLIAM, C</b> 860 BELLEPERCHE PL WINDSOR, ONTARIO N8S 3C3 SINGLE SOURCE; GENERAL FREIGHT.	<b>022911875</b> Original	<b>*887074 ONTARIO LTD.</b> 29 BRIARWOOD AVE ETOBICOKE, ONTARIO M9W 6C9 INTERMEDIARY; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (01000) METROPOLITAN TORONTO R, (27000) YORK R.	<b>101352160</b> Amend
<b>*2532-7602 QUEBEC INC</b> 1220 PROVENCHER APT111 BROSSARD QUEBEC J4W 2V9 OWNER DRIVER, exempt from Public Interest Test.	<b>104775659</b> Original	<b>*908362 ONTARIO INC</b> 1001 GLEN MOHR CR MIDLAND, ONTARIO L4R 4P5 GENERAL FREIGHT; TANK.	<b>104429019</b> Original
<b>*2631-4369 QUEBEC INC.</b> 1963 RG RIVIER NOTRE DAME BON CONSEIL QC J0C 1A0 SINGLE SOURCE; GENERAL FREIGHT; TANK.	<b>101188564</b> Original	<b>ONTARIO/QUEBEC, ONTARIO/USA BORDER CROSSINGS:</b>	
<b>*2642-0919 QUEBEC INC.</b> 6327 MONROE NIAGARA FALLS, ONTARIO L2G 2G9 SINGLE SOURCE; GENERAL FREIGHT.	<b>102163820</b> Original	<b>CARDINAL TRANSPORT INC.</b> 7180 E REED RD BOX 6 COAL CITY ILLINOIS, USA 60416 GENERAL FREIGHT.	<b>104642297</b> Original

<b>RAINBOW TRUCKING CO. INC.</b> 11111 FRENCH RD DETROIT MI, USA 48234 GENERAL FREIGHT.	<b>104788065</b> Original	<b>REGENTIK, MARK/REGENTIK, MICHAEL</b> 46144 NEESON NORTHVILLE MI, USA 48167 GENERAL FREIGHT.	<b>104612938</b> Original
<b>*2758-5793 QUEBEC INC.</b> 431 CH DE L'ECORE VALLEE-JONCTION QC G0S 3J0 GENERAL FREIGHT.	<b>104834050</b> Original	<b>REGIONAL IMPORT AND EXPORT TRUCKING CO. INC.</b> 1200 NEWARK TURNPIKE KEARNY NJ, USA 07032 GENERAL FREIGHT.	<b>104317138</b> Original
<b>ONTARIO/MANITOBA, ONTARIO/USA BORDER CROSSINGS:</b>		<b>STEIKAR, PAUL, DENNIS</b> BOX928-M48 4689 RUDYARD MICHIGAN, USA 49780 GENERAL FREIGHT.	<b>102443504</b> Original
<b>DARWIN ORR ENTERPRISES LTD.</b> #20,5550-36 ST. SE CALGARY, ALBERTA T2C 1P1 GENERAL FREIGHT.	<b>091837120</b> Original	<b>WILLIAM PFOHL TRUCKING CORP</b> 83 PFOHL RD CHEEKTOWAGA NY, USA 14225 GENERAL FREIGHT; TANK.	<b>100327939</b> Original
<b>ONTARIO/QUEBEC BORDER CROSSINGS:</b>		<b>753691 ONTARIO INC.</b> 89 GRAHAM AV N HAMILTON, ONTARIO L8H 4J8 GENERAL FREIGHT.	<b>091088755</b> Amend
<b>*BURATYNSKI, PETER</b> 777 MEAD BLVD BX1040 ESPANOLA, ONTARIO P0P 1C0 GENERAL FREIGHT; TANK.	<b>035171697</b> Amend		
<b>*PICARD, ROBERT, JOSEPH</b> RR2 CHAPEAU QUEBEC J0X 1M0 GENERAL FREIGHT.	<b>103287654</b> Original		
<b>ONTARIO/USA BORDER CROSSINGS:</b>		<b>MOTOR VEHICLE TRANSPORT ACT, 1987</b> <b>LOI DE 1987 SUR LES</b> <b>TRANSPORTS ROUTIERS</b>	
<b>ALL KINDS OF TRUCKS INC.</b> 4901 WEST 51 STREET TULSA OKLAHOMA, USA 74107 GENERAL FREIGHT.	<b>104797885</b> Original	<b>INTRA-PROVINCIAL TRUCK APPLICATIONS:</b>	
<b>*BANNISTER CLARK A/TRIPP</b> <b>THOMAS W/WEDGEWOOD JIM C</b> 160 MATHESON BLVD E UN6 MISSISSAUGA, ONTARIO L4L 1V4 GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (21102) MISSISSAUGA C.	<b>104514392</b> Original	The following are applications for operating licences under Part III of the Motor Vehicle Transport Act, 1987, S.C. 1987, Chapter 35. These applicants have been found to meet the fitness requirement in like manner to section 6 of the Truck Transportation Act, 1988, S.O. 1988, Chapter 64, and the provincial transport board for Ontario proposes to issue the licences unless a person, within thirty days of this publication, serves on the Applicant and files with the Registrar of Motor Vehicles with the prescribed filing fee, a written request for a fitness hearing or a public interest test in like manner to Subsection 7 (4) of the Truck Transportation Act, 1988, S.O. 1988, Chapter 64.	
<b>DAVIS TRANSPORT INC.</b> 216 TRADE STR BOX 8129 MISSOULA MONTANA, USA 59807 GENERAL FREIGHT.	<b>104291131</b> Original	<b>NOTE:</b> A person who requests a public interest hearing must, within thirty-nine days of this publication, serve on the Ontario Highway Transport Board a document that makes out a written case to the Board that the granting of the operating authority applied for would be likely to have a significant detrimental effect on the public interest using the criteria set out in subsection 10 (1) of the Truck Transportation Act, 1988, S.O. 1988, Chapter 64, and that the request is not frivolously made.	
<b>G &amp; B LEASING INC</b> 5401 18 MILE CREEK RD WESTPORT KY, USA 40077 GENERAL FREIGHT.	<b>104789098</b> Original	* Indicates a person who has applied for licences under both Part II and Part III of the Motor Vehicle Transport Act, 1987.	
<b>NILES, V, ANN</b> 175 WYOMING ST WARSAW NEW YORK, USA 14569 OWNER DRIVER, exempt from Public Interest Test.	<b>104789086</b> Original	The following applicants have applied for Authority to offer a transportation service as detailed below between (00000) POINTS IN ONTARIO:	
<b>PENINSULA TRUCKING COMPANY INC.</b> 97 N LESLIE RD NORTH EAST MD, USA 21901 GENERAL FREIGHT.	<b>104516060</b> Original	<b>*ANDERSON, JAY, D</b> 445 OSHAWA BLVD N OSHAWA, ONTARIO L1G 5T2 GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (10000) DURHAM R, (14000) HALTON R, (01000) METROPOLITAN TORONTO R, (21000) PEEL R, (27000) YORK R.	<b>071813272</b> Original

<b>*BANNISTER CLARK A/TRIPP THOMAS W/WEDGEWOOD JIM C</b> 160 MATHESON BLVD E UN6 MISSISSAUGA, ONTARIO L4L 1V4 GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (21102) MISSISSAUGA C.	<b>104514392</b> Original	<b>*JAFTCO TRANSPORTATION SERVICES INC.</b> 4040 CREDITVIEW UNIT 11 MISSISSAUGA, ONTARIO L5C 3Y8 INTERMEDIARY; GENERAL FREIGHT.	<b>104814118</b> Original
<b>*BEACH, DOUGLAS, D</b> BOX 46 MERIGOMISH NS B0K 1G0 SINGLE SOURCE; GENERAL FREIGHT.	<b>103902053</b> Original	<b>*JEDRSZCZYK, WIESLAW</b> 75 STEWART ST AP510 OAKVILLE, ONTARIO L6K 1X7 SINGLE SOURCE; GENERAL FREIGHT.	<b>104701702</b> Original
<b>*BURATYNSKI, PETER</b> 777 MEAD BLVD BX1040 ESPANOLA, ONTARIO P0P 1C0 GENERAL FREIGHT; TANK.	<b>035171697</b> Amend	<b>*KALOE, AVTAR, S</b> 63A WATSONS LANE DUNDAS, ONTARIO L9H 1T4 SINGLE SOURCE; GENERAL FREIGHT.	<b>082331786</b> Original
<b>*CRYSTAL CARTAGE (GUELPH) LTD</b> 265 MASSEY RD GUELPH, ONTARIO N1K 1B2 GENERAL FREIGHT; TANK.	<b>094424668</b> Original	<b>*LA COMPAGNIE DONALD LAVOIE INC.</b> 5705 DE LA PRUCHIERE CHARLESBOURG QC G2K 1T3 OWNER DRIVER, exempt from Public Interest Test.	<b>089777363</b> Original
<b>*DANCYN TRANSPORT INC</b> 355 RUE DES PENSEES STE MARTHE DU CAP PQ G8V 1C3 SINGLE SOURCE.	<b>101523094</b> Original	<b>*LECLERC, GERALD, J</b> 1374 BARTON ST WINONA, ONTARIO L0R 2L0 SINGLE SOURCE.	<b>028958178</b> Original
<b>FREEWAY TRANSPORTATION INC</b> 69 HAWKRIDGE AV MARKHAM, ONTARIO L3P 1W1 GENERAL FREIGHT.	<b>081758028</b> Amend	<b>*LEWIS ENTERPRISES LTD</b> 57 FRONTENAC DR. MONCTON, NEW BRUNSWICK E1A 2P5 GENERAL FREIGHT.	<b>091053976</b> Original
<b>*GORDON, ROBERT, W</b> 59 VICTORIA ST E AP2 BX283 ALLISTON, ONTARIO L0M 1A0 SINGLE SOURCE; INTERMEDIARY; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (70000) SIMCOE CO.	<b>047610616</b> Original	<b>*LINTON, WAYNE, GORDON</b> L22 C9 HALD ROSENEATH R4, ONTARIO K0K 2X0 SINGLE SOURCE; GENERAL FREIGHT; TANK.	<b>036741070</b> Original
<b>*GORDON TYSOSKI &amp; SON TRUCKING LTD</b> L32 C1 PAIPOONGE TWP THUNDER BAY RR5, ONTARIO P7C 5M9 SINGLE SOURCE; GENERAL FREIGHT.	<b>091376464</b> Amend	<b>*MAINVILLE, PIERRE, P</b> 1898 BELCOURT BLVD ORLEANS, ONTARIO K1C 1M5 SINGLE SOURCE; GENERAL FREIGHT.	<b>056152973</b> Original
<b>*GOULET GRAVEL LTD</b> S6 S1/2 L12 C4 GORHAM TP THUNDER BAY R16, ONTARIO P7B 6B3 GENERAL FREIGHT.	<b>102174281</b> Original	<b>*MARCEL O LALONDE TRUCKING INC</b> L1 HWY 34S, CHARLOTTENBURGH TWP, ALEXANDRIA, ONTARIO. K0C 1A0 SINGLE SOURCE; GENERAL FREIGHT.	<b>094381467</b> Original
<b>*GRAHAM, CLEMENT, E</b> 30 HUMBERLINE DR AP1405 REXDALE, ONTARIO M9W 6K8 GENERAL FREIGHT.	<b>086532514</b> Original	<b>*MASKOU TRANSPORT INC.</b> 2-3010 BOUL LAURIER STE-ROSALIE QUE J0H 1X0 OWNER DRIVER, exempt from Public Interest Test.	<b>104767635</b> Original
<b>*HAROLD B. LEGGE TRANSPORT LIMITED</b> 1258 STARRS POINT ROAD PORT WILLIAM NS B0P 1T0 GENERAL FREIGHT.	<b>047773687</b> Original	<b>*PARISI CARTAGE LTD</b> 121 BRISBANE RD UN-4 DOWNSVIEW, ONTARIO M3J 2K3 GENERAL FREIGHT.	<b>041211839</b> Amend
<b>*HYDE, WILLIAM, E</b> 130 POPLAR LANE HURON HAVEN GODERICH R6, ONTARIO N7A 3Y3 GENERAL FREIGHT.	<b>055641132</b> Original	<b>*PATTISON W, JOHN</b> 91 FIREHOUSE ROAD WALNUT BOTTOM PA, USA 17266 SINGLE SOURCE.	<b>104820912</b> Original
		<b>*PENNSYLVANIA TRUCK LINES INC</b> 308 E LANCASTER AVE WYNNEWOOD PA, USA 19096	<b>104654641</b> Original

GENERAL FREIGHT; HOUSEHOLD GOODS, provided that the licensee only maintains a place or places of business in locations other than the Province of Ontario.

**\*PICARD, ROBERT, JOSEPH** 103287654  
RR2 Original

CHAPEAU QUEBEC  
J0X 1M0  
GENERAL FREIGHT.

**\*PROKOP, GEORGE, J** 029786731  
404 YONGE CT Original

THUNDER BAY, ONTARIO  
P7E 6G4  
GENERAL FREIGHT.

**\*R.A.M. TRUCKING INC.** 104656843  
3819-3A ST NE Original

CALGARY AB  
T2E 6S7  
GENERAL FREIGHT.

**\*ROBERTSON, ANDREW, A** 041489493  
L10 C1 CARLING TP BX6 Original

NOBEL, ONTARIO  
P0G 1G0  
SINGLE SOURCE; GENERAL FREIGHT.

**\*SAJJAN, GURDIP, SINGH** 089704069  
67 MANITOU CR Original

BRAMALEA, ONTARIO  
L6S 2Z6  
OWNER DRIVER, exempt from Public Interest Test.

**\*SAVOIE, LOUIS** 057058257  
3605 KARIYA DR AP1103 Original

MISSISSAUGA, ONTARIO  
L5B 3J4  
SINGLE SOURCE; GENERAL FREIGHT.

**\*SILANDER, BARRY, ANTON** 022410522  
33 PALM CREST LAKEVIEW T CT Amend

FORT FRANCES, ONTARIO  
P9A 3M3  
GENERAL FREIGHT.

**\*TRANSPORT J.A.D. INC.** 097827820  
939 BAIE DES CEDRES Original

CHAMBORD QUEBEC  
G0W 1G0  
SINGLE SOURCE; GENERAL FREIGHT.

**\*TRANSPORT MARCEL PILON INC.** 103512468  
1033 DESBIENS Original

BELLEFEUILLE QUEBEC  
J0R 1A0  
SINGLE SOURCE.

**\*TRANSPORT PAUZE-RIOPEL INC.** 104787775  
141 RUE BEAUPRE Original

L ASSOMPTION QC  
J0K 1G0  
SINGLE SOURCE.

**\*TRANSPORT P.Y.L. INC.** 083977522  
1236 BOUL DES SUCRERIES Original

PLESSISVILLE QC  
G6L 2Y2  
SINGLE SOURCE; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee only maintains a place or places of business in locations other than the Province of Ontario.

**\*TRANSPORT RABEL INC.** 103968318  
26 DELORME Original

ST CONSTANT QUEBEC  
J5A 1Y9  
OWNER DRIVER, exempt from Public Interest Test.

**\*TRANSPORT ROUL-BEC LTEE**

2390 BADUAN ST BX817 STN A  
JONQUIERE, QUEBEC  
G7X 7W6  
GENERAL FREIGHT.

**099216948**

Original

**\*WESSEL, WILLIAM, C**

860 BELLEPERCHE PL  
WINDSOR, ONTARIO  
N8S 3C3  
SINGLE SOURCE; GENERAL FREIGHT.

**022911875**

Original

**\*2532-7602 QUEBEC INC**

1220 PROVENCHER APT111  
BROSSARD QUEBEC  
J4W 2V9  
OWNER DRIVER, exempt from Public Interest Test.

**104775659**

Original

**\*2631-4369 QUEBEC INC.**

1963 RG RIVIER  
NOTRE DAME BON CONSEIL QC  
J0C 1A0  
SINGLE SOURCE; GENERAL FREIGHT; TANK.

**101188564**

Original

**\*2642-0919 QUEBEC INC.**

6327 MONROE  
NIAGARA FALLS, ONTARIO  
L2G 2G9  
SINGLE SOURCE; GENERAL FREIGHT.

**102163820**

Original

**\*2644-0677 QUEBEC INC.**

516 CHEMIN BELLEVVE EST  
CAP ST-IGNANE  
G0R 1J0  
OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT.

**104739925**

Original

**\*2644-5304 QUEBEC INC.**

143 PRINCIPALE  
ST-EUPHEMIE QUEBEC  
G0R 2X0  
SINGLE SOURCE.

**104794717**

Original

**\*2738-4197 QUEBEC INC.**

4343 GARAND  
ST LAURENT PQ  
H4R 2B4  
GENERAL FREIGHT.

**104776146**

Original

**\*2739-7272 QUEBEC INC.**

2 ST JACQUES  
MONTMAGNY QUEBEC  
G5V 3C4  
SINGLE SOURCE.

**104734211**

Original

**\*2758-5793 QUEBEC INC.**

431 CH DE L ECORE  
VALLEE-JONCTION QC  
G0S 3J0  
GENERAL FREIGHT.

**104834050**

Original

**\*2759-9505 QUEBEC INC.**

933 RUE TRUCHON  
ST FELICIEN QUEBEC  
G8K 1J8  
SINGLE SOURCE; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee only maintains a place or places of business in locations other than the Province of Ontario.

**104775985**

Original

**\*2844-3950 QUEBEC INC.**

2080 3RD CONCESSION  
ELGIN QUEBEC  
J0S 1A0  
GENERAL FREIGHT.

**104734794**

Original

<b>*2846-0103 QUEBEC INC.</b> 780 87E RUE EST ST GEORGES QUEBEC G5Y 5Y2 SINGLE SOURCE; GENERAL FREIGHT.	<b>104775518</b> Original	<b>GOULET GRAVEL LTD</b> S6 S1/2 L12 C4 GORHAM TP THUNDER BAY R16, ONTARIO P7B 6B3 GENERAL FREIGHT.	<b>102174281</b> Original
<b>*766234 ONTARIO INC</b> 98 CHILTON DR STONE CREEK, ONTARIO L8J 1M5 SINGLE SOURCE; GENERAL FREIGHT.	<b>094123454</b> Original	<b>HAROLD B. LEGGE TRANSPORT LIMITED</b> 1258 STARRS POINT ROAD PORT WILLIAM NS B0P 1T0 GENERAL FREIGHT.	<b>047773687</b> Original
<b>*887074 ONTARIO LTD.</b> 29 BRIARWOOD AVE ETOBICOKE, ONTARIO M9W 6C9 SINGLE SOURCE; INTERMEDIARY; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (27000) YORK R.	<b>101352160</b> Amend	<b>JEDRSZCZYK, WIESLAW</b> 75 STEWART ST AP510 OAKVILLE, ONTARIO L6K 1X7 GENERAL FREIGHT.	<b>104701702</b> Original
<b>*908362 ONTARIO INC</b> 1001 GLEN MOHR CR MIDLAND, ONTARIO L4R 4P5 GENERAL FREIGHT; TANK.	<b>104429019</b> Original	<b>LEWIS ENTERPRISES LTD</b> 57 FRONTENAC DR. MONCTON, NEW BRUNSWICK E1A 2P5 GENERAL FREIGHT.	<b>091053976</b> Original
<b>CORRIDOR APPLICATIONS:</b>			
<b>NOTE:</b> The Motor Vehicle Transport Act, 1987, Regulations SOR 1987-1026, section 9 provides that a corridor operation is exempt from the application of subsections 8(3) to (5) of the Act (public interest test).			
The following applicants have applied for Authority to offer a transportation service through Ontario, provided there is no pickup or delivery in Ontario, utilizing the appropriate border crossings:			
<b>ONTARIO/QUEBEC, ONTARIO/MANITOBA, ONTARIO/USA BORDER CROSSINGS:</b>			
<b>ANDERSON, JAY, D</b> 445 OSHAWA BLVD N OSHAWA, ONTARIO L1G 5T2 GENERAL FREIGHT; HOUSEHOLD GOODS.	<b>071813272</b> Original	<b>PENNSYLVANIA TRUCK LINES INC</b> 308 E LANCASTER AVE WYNNEWOOD PA, USA 19096 GENERAL FREIGHT; HOUSEHOLD GOODS.	<b>104654641</b> Original
<b>BERKSHIRE ARMORED CAR SERVICES INC.</b> 343 PECKS RD PITTSFIELD MA, USA 01201 GENERAL FREIGHT.	<b>104770688</b> Original	<b>PROKOP, GEORGE, J</b> 404 YONGE CT THUNDER BAY, ONTARIO P7E 6G4 GENERAL FREIGHT.	<b>029786731</b> Original
<b>CRYSTAL CARTAGE (GUELPH) LTD</b> 265 MASSEY RD GUELPH, ONTARIO N1K 1B2 GENERAL FREIGHT; TANK.	<b>094424668</b> Original	<b>R.A.M. TRUCKING INC.</b> 3819-3A ST NE CALGARY AB T2E 6S7 GENERAL FREIGHT.	<b>104656843</b> Original
<b>DAVIS TRANSPORT INC.</b> 216 TRADE STR BOX 8129 MISSOULA MONTANA, USA 59807 GENERAL FREIGHT.	<b>104291131</b> Original	<b>THEODORE ROSSI TRUCKING CO. INC.</b> 9 SOUTH VINE ST BOX332 BARRE VT. USA 05641 GENERAL FREIGHT.	<b>104316861</b> Original
<b>GORDON, ROBERT, W</b> 59 VICTORIA ST E AP2 BX283 ALLISTON, ONTARIO L0M 1A0 GENERAL FREIGHT; TANK; HOUSEHOLD GOODS.	<b>047610616</b> Original	<b>TRANSPORT J.A.D. INC.</b> 939 BAIE DES CEDRES CHAMBORD QUEBEC G0W 1G0 GENERAL FREIGHT.	<b>097827820</b> Original
<b>GORDON TYSOSKI &amp; SON TRUCKING LTD</b> L32 C1 PAIPOONGE TWP THUNDER BAY RR5, ONTARIO P7C 5M9 GENERAL FREIGHT.	<b>091376464</b> Amend	<b>TRANSPORT P.Y.L. INC.</b> 1236 BOUL DES SUCRERIES PLESSISVILLE QC G6L 2Y2 GENERAL FREIGHT; TANK; HOUSEHOLD GOODS.	<b>083977522</b> Original

**TRANSPORT ROUL-BEC LTEE**  
2390 BADUAN ST BX817 STN A  
JONQUIERE, QUEBEC  
G7X 7W6  
GENERAL FREIGHT.

**099216948**  
Original

**WILLIAM PFOHL TRUCKING CORP**  
83 PFOHL RD  
CHEEKTOWAGA NY, USA  
14225  
GENERAL FREIGHT; TANK.

**100327939**  
Original

**2631-4369 QUEBEC INC.**  
1963 RG RIVIER  
NOTRE DAME BON CONSEIL QC  
J0C 1A0  
GENERAL FREIGHT; TANK.

**101188564**  
Original

**2642-0919 QUEBEC INC.**  
6327 MONROE  
NIAGARA FALLS, ONTARIO  
L2G 2G9  
GENERAL FREIGHT.

**102163820**  
Original

**2644-0677 QUEBEC INC.**  
516 CHEMIN BELLEVUE EST  
CAP ST-IGNACE  
G0R 1J0  
GENERAL FREIGHT.

**104739925**  
Original

**2759-9505 QUEBEC INC.**  
933 RUE TRUCHON  
ST FELICIEN QUEBEC  
G8K 1J8  
GENERAL FREIGHT; TANK; HOUSEHOLD GOODS.

**104775985**  
Original

**2844-3950 QUEBEC INC.**  
2080 3RD CONCESSION  
ELGIN QUEBEC  
J0S 1A0  
GENERAL FREIGHT.

**104734794**  
Original

**2846-0103 QUEBEC INC.**  
780 87E RUE EST  
ST GEORGES QUEBEC  
G5Y 5Y2  
GENERAL FREIGHT.

**104775518**  
Original

**752007 ONTARIO INC**  
L20 C5 HWY 11 N WIDD TWP  
NORTH BAY R2, ONTARIO  
P1B 8G3  
GENERAL FREIGHT.

**091269775**  
Amend

#### ONTARIO/QUEBEC, ONTARIO/USA BORDER CROSSINGS:

**RAINBOW TRUCKING CO. INC.**  
11111 FRENCH RD  
DETROIT MI, USA  
48234  
GENERAL FREIGHT.

**104788065**  
Original

**2758-5793 QUEBEC INC.**  
431 CH DE L'ECORE  
VALLEE-JONCTION QC  
G0S 3J0  
GENERAL FREIGHT.

**104834050**  
Original

#### ONTARIO/USA BORDER CROSSINGS:

**PENINSULA TRUCKING COMPANY INC.**  
97 N LESLIE RD  
NORTH EAST MD, USA  
21901  
GENERAL FREIGHT.

**104516060**  
Original

**REGIONAL IMPORT AND EXPORT TRUCKING CO. INC.**  
1200 NEWARK TURNPIKE  
KEARNY NJ, USA  
07032  
GENERAL FREIGHT.

**104317138**  
Original

## TRUCK TRANSPORTATION ACT, 1988 LOI DE 1988 SUR LE CAMIONNAGE

The following are applications for operating licences under the Truck Transportation Act, 1988, S.O. 1988, Chapter 64. These Applicants have been found to meet the fitness requirements pursuant to section 6 of that Act and the Registrar of Motor Vehicles proposes to issue the licences unless a person, within thirty days of this publication, serves on the Applicant and files with the Registrar of Motor Vehicles with the prescribed filing fee, a written request for a fitness hearing or a public interest test pursuant to subsection 7 (4) of the Act.

The following applicants have applied for Authority to offer a transportation service as detailed below between (00000) POINTS IN ONTARIO:

**ALLEN, LAURISTON, M**  
3820 KEENAN DR  
MISSISSAUGA, ONTARIO  
M9V 3M5  
GENERAL FREIGHT.

**065678422**  
Original

**BLOODWORTH, JAMES, N**  
95 JOHN SCOTT CRT  
BOWMANVILLE, ONTARIO  
L1C 4L1  
OWNER DRIVER, exempt from Public Interest Test; TANK.

**031172678**  
Original

**BRIDGE, CATHERINE, A**  
L25 C4 EASTNOR  
LIONS HEAD R1, ONTARIO  
N0H 1W0  
GENERAL FREIGHT.

**076155118**  
Original

**BRUSVEN, DONALD, E**  
L1 ROSEBERRY RIVER RGE  
BARWICK R1, ONTARIO  
P0W 1A0  
GENERAL FREIGHT.

**023570994**  
Original

**CRONK, BRIAN, L**  
L6 C5 LAXTON TP  
KIRKFIELD R1, ONTARIO  
K0M 2B0  
GENERAL FREIGHT.

**031607168**  
Original

**F W CUNNINGHAM AND SONS LTD**  
726 ONTARIO ST UNIT 9  
COBOURG, ONTARIO  
K9A 5E8  
GENERAL FREIGHT.

**059078436**  
Amend

**FINLAYSON, REGINALD, G**  
L16 C9 HIBBERT TP  
STAFFA, ONTARIO  
N0K 1Y0  
TANK.

**043551123**  
Amend

**FRENCH, JOSEPH, A**  
195 WEXFORD ROAD PO BOX3  
BRAMPTON, ONTARIO  
L6Z 2R2  
GENERAL FREIGHT.

**081251727**  
Original

**GALBRAITH, KENNETH, J**  
N PT L35 C4 ELMA  
LISTOWEL R4, ONTARIO  
N4W 3G9  
GENERAL FREIGHT.

**020477051**  
Original

<b>GIANNOTTA, CARLO</b> 490 WILSON AV AP5 DOWNSVIEW, ONTARIO M3H 1T8 GENERAL FREIGHT.	<b>024388579</b> Original	<b>PATCHETT, DAVID, P</b> 15 FORD ST CAPREOL, ONTARIO P0M 1H0 GENERAL FREIGHT.	<b>056672296</b> Original
<b>HADDOCK, JAMES, E</b> 15 POINT GREY CRES. SCARBOROUGH, ONTARIO M1G 2L1 OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT.	<b>073633650</b> Original	<b>PLUMMER, PETER, R</b> L37 GOLDING TP RAITH, ONTARIO P0T 2N0 GENERAL FREIGHT.	<b>033602144</b> Original
<b>HUBBARD, CARL, K</b> 6 LORLAND AV MISSISSAUGA, ONTARIO L4X 2A6 GENERAL FREIGHT.	<b>005417297</b> Original	<b>POLKIEWICZ, EDWARD, A</b> 220 PINE ST BX999 STAYNER, ONTARIO L0M 1S0 BULK.	<b>049052505</b> Original
<b>KELLY, KENNETH, A/KOVACS, STEVE, J</b> 2125 OLIVER ROAD RR17 THUNDER BAY, ONTARIO P7B 6C2 SINGLE SOURCE; GENERAL FREIGHT.	<b>104772412</b> Original	<b>R H RICHARDSON LTD</b> P O BOX134, L7 C5 LOUGHBOROUGH TP. SYDENHAM, ONTARIO K0H 2T0 GENERAL FREIGHT.	<b>079953158</b> Amend
<b>KEN BURKE TRUCKING LTD</b> L2 C1 GORDON LAKE RD CHELMSFORD R1, ONTARIO P0M 1L0 SINGLE SOURCE; GENERAL FREIGHT; TANK; HOUSEHOLD GOODS, provided that the licensee has a place or places of business only at: (23000) SUDBURY R.	<b>063515637</b> Amend	<b>RAM &amp; SONS TRUCKING AND LEASING LTD.</b> 91 MINGLEHAZE DR REXDALE, ONTARIO M9V 4B7 SINGLE SOURCE; GENERAL FREIGHT.	<b>104820567</b> Original
<b>KENPAL FARM PRODUCTS INC</b> L7 C1 STEPHEN TP. CENTRALIA R1, ONTARIO N0M 1K0 GENERAL FREIGHT; TANK.	<b>078226873</b> Original	<b>RHODES, LEONARD, W</b> 66 HAMMOND RD MISSISSAUGA, ONTARIO L5M 2A2 SINGLE SOURCE; TANK.	<b>026012916</b> Original
<b>LUCHKA, DANIEL, S</b> L2 C10 SCUGOG TWP PORT PERRY R3, ONTARIO L9L 1B4 GENERAL FREIGHT.	<b>085311086</b> Original	<b>RUNNALLS, ROSS, VERNON</b> L14 C5 THUR PLAINFIELD R1, ONTARIO K0K 2V0 SINGLE SOURCE; GENERAL FREIGHT.	<b>060869759</b> Original
<b>LAJEUNESSE, DONALD, T</b> 90 BIRCH AV BX684 EAR FALLS, ONTARIO P0V 1T0 GENERAL FREIGHT.	<b>078073378</b> Original	<b>SHEPPARD, VARRICK, W</b> 3477 GLEN ERINDR APT 61 MISSISSAUGA, ONTARIO L5L 2G2 OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT; TANK.	<b>018530861</b> Original
<b>LEVA, UMBERTO</b> 75 GULLIVER CR BRAMPTON, ONTARIO L6S 1T1 GENERAL FREIGHT.	<b>071163897</b> Original	<b>STERLING PACKERS LTD</b> 250 SUMMERLEA RD BRAMPTON, ONTARIO L6T 3V6 GENERAL FREIGHT.	<b>030266998</b> Original
<b>M.M.D. HAULAGE LTD.</b> PT L4 C8 BALDWIN TP. BALDWIN, ONTARIO L0E 1A0 GENERAL FREIGHT.	<b>087624812</b> Original	<b>STRICKER, STANLEY, P</b> 137 MAIN STR BX114 ATWOOD, ONTARIO N0G 1B0 OWNER DRIVER, exempt from Public Interest Test; GENERAL FREIGHT.	<b>069506086</b> Original
<b>MERCURE, RANDOLPH, C</b> 18 TERRACE HEIGHTS TERRACE BAY, ONTARIO P0T 2W0 GENERAL FREIGHT.	<b>013897006</b> Amend	<b>TERRE DE LA PRAIRIE FARMS INC.</b> L12 C12 DOVER TWP RT1 DOVER CENTRE, ONTARIO N0P 1L0 GENERAL FREIGHT.	<b>104731073</b> Original
<b>PANSAR, VINOD, CHANDRA</b> 3845 SHEPPARD AV E APT408 SCARBOROUGH, ONTARIO M1T 3S8 GENERAL FREIGHT.	<b>081374881</b> Original	<b>WILTON, DAVID, L</b> 18 BECK ST BADEN, ONTARIO N0B 1G0 GENERAL FREIGHT.	<b>034566231</b> Original

**WYDER, CHARLES, W**  
L6 C2 MELLICK TP  
KENORA R1, ONTARIO  
P9N 3W7  
GENERAL FREIGHT.

**007583977**  
Original

only as defined in paragraph (a) (iv) of subsection 1 of Section 9 of Regulation 888 under the Public Vehicles Act, R.S.O. 1980, Chapter 425."

**901777 ONTARIO LTD.**  
L9 C11 OLDEN TWP RR2  
SHARBOT LAKE, ONTARIO  
K0H 2P0  
GENERAL FREIGHT.

**104823164**  
Original

**916245 ONTARIO LTD**  
L5 C2 KINLOSS TWP  
LUCKNOW R5, ONTARIO  
N0G 2H0  
GENERAL FREIGHT; TANK.

**104745680**  
Original

Michael T. Curtin  
Manager

## MOTOR VEHICLE TRANSPORT ACT, 1987

### PUBLIC VEHICLES ACT

#### BUS APPLICATIONS:

The following applications for operating licences under Part I of the Motor Vehicle Transport Act, 1987, S.C. 1987, Chapter 35, or the Public Vehicles Act, R.S.O. 1980, Chapter 425 is published pursuant to Section 8, R.R.O. 1980, Regulation 716 under the Ontario Highway Transport Board Act, R.S.O. 1980, Chapter 338. Section 8 provides that the Board may dispose of these applications summarily if no objection is served and filed in the prescribed manner within twenty-nine days of this publication.

#### Motor Vehicle Transport Act, 1987, Part I Applications:

**Crosswinds Bus Lines Ltd.**  
R. R. # 3  
Alfred, Ontario  
K0B 1A0

33255-A

applies for an extra-provincial operating licence as follows:

"For the transportation of passengers who are students, staff or chaperons under the jurisdiction of the Prescott and Russell County Board of Education on a chartered trip from points in the United Counties of Prescott and Russell to the:

- (a) Ontario/Quebec Border Crossings
- (b) Ontario/U.S.A. Border Crossings

and return of the same passengers on the same chartered trip to point of origin.

PROVIDED that:

1. chartered trips shall be restricted to school purposes and only for schools under the jurisdiction of the aforesaid school board.
2. such chartered trip authority shall terminate automatically on the 31st day of December of any year if on that date a valid contract for home/school route service is not in effect with the said Board.
3. each chartered trip must be authorized in writing by the School Board or Schools involved in the chartered trip;
4. the licensee be restricted to the use of Class "D" public vehicles

### PUBLIC VEHICLES ACT

#### PUBLIC VEHICLES APPLICATIONS:

**Isaac Dennis Dolson**  
R. R. # 1  
Muncey, Ontario  
N0L 1Y0

44271-A

applies for a public vehicle operating licence as follows:

"For the transportation of passengers on a chartered trip from the Munsee Delaware Nation Indian Reserve in the Township of Caradoc."

#### TARIFF OF TOLLS

\$ 1.16 per kilometre  
\$12.50 per hour (waiting time)

**Executive Shuttle Service Inc.**  
211 Holmes Avenue  
North York, Ontario  
M2N 4M9

44465

applies for transfer of Public Vehicle operating licence PV-3988 now in the name of Anthony J. Farrah & Anthony P. Farrah, 211 Holmes Avenue, North York, Ontario, M2N 4M9.

**Glen Flake**  
R. R. # 2  
Picton, Ontario  
K0K 2T0

44460

applies for a public vehicle (school bus) operating licence as follows:

"For the transportation of pupils for the Prince Edward County Board of Education between points in the Township of Sophiasburgh and schools under the jurisdiction of the aforesaid school board.

PROVIDED that charter privileges be restricted to school purposes and only for schools under the jurisdiction of the aforesaid school board."

**J. & V. Manion Inc.**  
P.O. Box 490  
Barry's Bay, Ontario  
K0J 1B0

39144-B

applies for a public vehicle (school bus) operating licence as follows:

"For the transportation of pupils for the Renfrew County Board of Education and the Renfrew County Roman Catholic Separate School Board between points in the County of Renfrew and schools under the jurisdiction of the aforesaid School Boards.

PROVIDED that charter privileges be restricted to school purposes and only for schools under the jurisdiction of the aforesaid school boards.

PROVIDED FURTHER that Public Vehicle (School Bus) Operating Licence PVS-7814 be cancelled."

**435324 Ontario Limited**  
**o/a Voyageur Limousine & Van Service**  
331 Sovereign Road  
London, Ontario  
N6M 1A6

32786-O

applies for a public vehicle operating licence as follows:

"For the transportation of passengers on a chartered trip from the City of London.

PROVIDED that the licensee be restricted to the use of Class "D" public vehicles as defined in paragraph (a) (iv) of subsection 1 of Section 9 of Regulation 888 under the Public Vehicles Act, R.S.O. 1980, and each having a maximum seating capacity of 7 passengers exclusive of the driver".

#### TARIFF OF TOLLS:

	Lincoln Superstretch	Lincoln Sedan
hourly rate:	\$ 65.00	\$ 50.00
Out to Dinner Special (City)	\$140.00*	\$130.00
Out to Dinner Split	\$170.00**	\$160.00
Out of Town	\$200.00***	\$180.00

\* Restricted to 1 hour each way within a four hour period.

\*\* 1 hour before/after exceeding 4 hour period (i.e. 6:00 p.m. P/U - 1:00 a.m. return)

\*\*\* Waiting time \$30.00 hourly.

<b>WEDDINGS (minimum 4 hours)</b>	\$ 80.00	\$ 50.00
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#### AIRPORTS (from London)

Toronto, Hamilton, Windsor	\$185.00	\$170.00
Downtown Toronto	\$195.00	\$180.00
Detroit	\$200.00	\$185.00
Buffalo	\$215.00	\$190.00
London	\$ 65.00	\$ 55.00
Sarnia	\$135.00	\$115.00

Sarnia to Detroit \$200.00 - Stretch Limousine

#### FLAT RATES

5 HOURS	\$245.00	\$210.00
6 HOURS	\$275.00	\$235.00
7 HOURS	\$305.00	\$260.00
8 HOURS	\$335.00	\$285.00
9 HOURS	\$365.00	\$310.00
10 HOURS	\$395.00	\$335.00

Each additional hour - \$30.00

#### PROMS/SEMIFORMALS/GRADS

\$70.00 per hour - 2 consecutive hours.

\* ALL PRICES SUBJECT TO THE GST TAX."

#### 814140 Ontario Inc.

**o/a Luxury Lifestyle limousine**

389 Fox Avenue

London, Ontario

N6G 1H7

44449

applies for a public vehicle operating licence as follows:

"For the transportation of passengers on a chartered trip from the City of London.

PROVIDED that the licensee be restricted to two (2) Class "D" public vehicles (limousine type) as defined in paragraph (a) (iv) of subsection 1 of Section 9 of Regulation 888 under the Public Vehicles Act, R.S.O. 1980, Chapter 425, having a maximum seating capacity of 7 passengers exclusive of the driver.

#### TARIFF OF TOLLS:

London to Toronto,	\$180.00
Downtown Airport	\$160.00
London to Kitchener	\$120.00
London to Sarnia	\$110.00
London to Windsor	\$180.00
London to Niagara Falls	\$180.00

Weddings: 3 hours	\$225.00
4 hours	\$280.00

8 hour flat rate special	\$300.00
10 hour flat rate special	\$350.00

Any other rates to other destinations will be based on the above."

#### P.W. Transportation Ltd.

1828 Drew Road

Mississauga, Ontario

L5S 1J6

43995-B

applies for a public vehicle operating licence as follows:

"For the transportation of passengers who have a prior or subsequent movement by air together with their baggage between the installations of Trillium Terminal 3 situate at Lester B. Pearson International Airport in the City of Mississauga on the one hand and hotels, situate in the City of Mississauga and the City of Etobicoke."

#### TARIFF OF TOLLS:

## TARIFF OF TOLLS

PURSUANT TO SECTION 18 OF THE PUBLIC VEHICLE ACT SUBMITTED HERewith IN TRIPLICATE, FOR THE APPROVAL OF THE MINISTRY, IS A TARIFF OF TOLLS PROPOSED FOR THE PUBLIC VEHICLE SERVICE OPERATED.

PW Transportation Ltd.

Terminal 3, L.B.P.I.A. AND Various hotels as set out below

PROPOSED EFFECTIVE DATE February 21, 1991

SIGNATURE \_\_\_\_\_

Mark Hannah-General Manager

NOTE:-

Opposite "S" in each space enter the wing  
or one way fare proposed.

Opposite "R" in each space enter the return fare proposed.

In the columns headed "From" and "To" enter names of stopping places or fare division in the order in which they are located on your route.

In the column headed "Distance" enter the distance in Kilometer between each stopping or fare division.

In the space provided for "Special Fares" enter "Rates" for trip or book tickets and school or children's fares, if any.

[illegible]

## SCHEDULE "A"

## Schedule of Service

The service to the hotels as set out in the Tariff of Tolls shall be as follows:

"Daily service commences on February 21, 1991, departing Trillium Terminal 3, Lester B. Pearson International Airport, at 1100 hours, and continues every half hour thereafter until and including 2400 hours to the hotels as set out in the Tariff of Tolls, provided that service to any one hotel shall be on demand, *i.e.*, stops will only be made at those hotels to which passengers are destined on any given vehicle from Trillium Terminal 3."

LOI DE 1987 SUR LES  
TRANSPORT ROUTIERSLOI SUR LES VÉHICULES DE  
TRANSPORT EN COMMUN

## DEMANDES D'EXPLOITATION D'UN AUTOBUS

Les demandes suivante de licence d'exploitation sont été présentées en vertu de la partie 1 de la Loi de 1987 sur les transports routiers, L.C. de 1987, chapitre 35 où de la Loi sur les véhicules de transport en commun, L.R.O. de 1980, chapitre 425 et été publiée en vertu de l'article 8, R.R.O. de 1980, régalement 716 pris en application de la Loi sur la Commission des transports routiers de l'Ontario, L.R.O. de 1980, chapitre 338. L'article 8 stipule que la Commission peut traiter ces demandes sans autre forme de procès si aucune objection n'est soulevée et déposée de la manière prescrite dans les vingt-neuf jours suivant la présente publication.

DEMANDE PRÉSENTÉS EN VERTU DE LA PARTIE I DE LA  
LOI DE 1987 SUR LES TRANSPORTS ROUTIERS

**Crosswinds Bus Lines Ltd.** 33255-A  
R. R. # 3  
Alfred, Ontario  
K0B 1A0

présente une demande de permis de transport extra-provincial aux fins suivantes:

"Pour le transport nolisé aller-retour d'étudiants, du personnel enseignant et des accompagnateurs relevant de la juridiction de la Commission Scolaire de Comté du Prescott-Russell à partir de divers lieux situés dans les Comté Unis du Prescott-Russell à:

- (a) Les frontières Ontario/Québec
- (b) Les frontières Ontario/É.U.

## SOUS RÉSERVE DES CONDITIONS SUIVANTES:

1. que les voyages nolisés soient limités à des fins scolaires et pour les écoles relevant de la juridiction de la commission scolaire susmentionnée;
2. que l'autorisation de nolisement conférée prenne fin le 31e jour de décembre de l'année, à moins qu'un contrat pour le transport scolaire n'ait été signé avec la commission scolaire susmentionnée;
3. que chaque voyage nolisé soit autorisé par écrit par les écoles ou bien la commission scolaire concernée;
4. que le titulaire ne soit autorisé à opérer que des véhicules de transport en commun de catégorie "D" tels que définis par l'article 9(1), alinéa (a) (iv) du règlement 888 adopté en vertu de la Loi sur les véhicules de transport en commun, L.R.O., chapitre 425."

## DEMANDES D'EXPLOITATION D'UN AUTOBUS

**Isaac Dennis Dolson** 44271-A  
R. R. # 1  
Muncey, Ontario  
N0L 1Y0

présente une demande de permis d'un véhicule de transport en commun aux fins suivantes:

"Pour le transport nolisé de passagers à partir de la Réserve Indienne de Munsee Delaware Nation situé aux le Canton de Caradoc.

## TARIF:

Voir le tarif en anglais.

**Executive Shuttle Service Inc.** 44465  
211 Holmes Avenue  
North York, Ontario  
M2N 4M9

présent une demande de transfert de permis d'exploitation d'un véhicule de transport en commun PV-3988 actuellement délivré à Anthony J. Farrah & Anthony P. Farrah, 211 Holmes Avenue, North York, Ontario, M2N 4M9.

**Glen Flake** 44460  
R. R. # 2  
Picton, Ontario  
K0K 2T0

présente une demande de permis de transport scolaire:

"Pour le transport d'élèves pour le compté de la Commission scolaire de comté de Prince Edward entre divers lieux situés dans le Canton du Sophiasburgh et les écoles sous la juridiction de la Commission scolaire susmentionné.

SOUS RÉSERVE que les privilèges de nolisement soient limités à des fins scolaires et aux écoles relevant de la juridiction de la commission scolaire susmentionné."

**J. & V. Manion Inc.** 39144-B  
P.O. Box 490  
Barry's Bay, Ontario  
K0J 1B0

présente une demande de permis de transport scolaire:

"Pour le transport d'élèves pour la Commission Scolaire Catholique de Renfrew et la Commission scolaire de comté du Renfrew entre divers lieux situés dans le Comté de Renfrew et les écoles sous la juridiction de la Commission Scolaire susmentionné.

SOUS RÉSERVE que les privilèges de nolisement soient limités à des fins scolaires et aux écoles relevant de la juridiction de la Commission scolaire susmentionné.

SOUS RÉSERVE que permis scolaire No. 7814 soit annuler."

**435324 Ontario Limited**  
**o/a Voyageur Limousine & Van Service** 327860-O  
331 Sovereign Road  
London, Ontario  
N6M 1A6

présente une demande de permis d'un véhicule de transport en commun aux fins suivantes:

"Pour le transport nolisé de passagers à partir de le cité de London.

SOUS RÉSERVE que le titulaire ne soit autorisé à opérer que des véhicules de transport en commun de catégorie "D" tels que définis par l'article 9(1), alinéa (a) (iv) du règlement 888 adopté en vertu de la loi

sur les véhicules de transport en commun L.R.O. , 4c. 425 et pouvant transporter au plus 7 passagers assis en plus du conducteur.

#### TARIF:

Voir le tarif en anglais.

**814140 Ontario Inc.**  
**o/a Luxury Lifestyle limousine**  
 389 Fox Avenue  
 London, Ontario  
 N6G 1H7

44449

présente une demande de permis d'un véhicule de transport en commun aux fins suivantes:

"Pour le transport nolisé de passagers à partir de le Cité de London.

SOUS RÉSERVE que le titulaire ne soit autorisé à opérer plus que deux (2) véhicules de transport en commun de catégorie "D" (être le type comme limousine) tels que définis par l'article 9(1), alinéa (a) (iv) du règlement 888 adopté en vertu de la loi sur les véhicules de transport en commun L.R.O., C.425 et pouvant transporter au plus 7 passagers assis en plus de conducteur."

#### TARIF:

Voir le tarif en anglais.

**P.W. Transportation Ltd.**  
 1828 Drew Road  
 Mississauga, Ontario  
 L5S 1J6

43995-B

présente une demande de permis de transport d'un véhicule en commun aux fins suivantes:

"Pour le transport de passagers et leur bagage ayant ou pourrait avoir un mouvement par air entre l'installation de Trillium Terminal 3, situé à Lester B. Pearson International Airport dans le Cité de Mississauga d'une part et des hôtel situé dans les Cité de Mississauga et Etobicoke."

#### TARIF:

Voir le tarif en anglais.

Felix D'Mello  
 Board Secretary

## Government Notices Respecting Corporations Avis du gouvernement relatifs aux compagnies

### Certificates of Incorporation Certificats de constitution

NOTICE IS HEREBY GIVEN that a certificate of incorporation under the *Business Corporation Act, 1982* has been endorsed:

AVIS EST DONNÉ PAR LA PRÉSENTE que, conformément à la *Loi de 1982 sur les compagnies*, un certificat de constitution en personne morale a été inscrit pour les compagnies suivantes :

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corporation Number Numero de la compagnie en Ontario
1991-01-15	
920280 Ontario Inc, Ottawa	0920280
1991-01-16	
Dexter Auto-Sport Inc., Mississauga	0923259
Mamaco Trading Company Inc., Mississauga	0916378
923132 Ontario Inc., Sault Ste Marie	0923132
1991-01-17	
Club Operations Group International Inc., Markham	0923285
Fargo Consultants Inc., Cornwall	0923278
1991-01-18	
Habit Steel (1991) Incorporated, Brampton	0923293
L. Moncrief Trucking Ltd., Red Lake	0917220
923037 Ontario Ltd., Nepean	0923037
923292 Ontario Limited, Toronto	0923292
923294 Ontario Inc., St Catharines	0923294
1991-01-21	
E.&W. Farms Inc., Lucknow	0920306
Gregon Estimating Services Ltd., Bradford	0923027
Jardine Consulting Ltd., Ottawa	0923391
MacNewco Wood Inc., Coe Hill	0923113
Pro-Liberi Ltd., Mississauga	0923209
923029 Ontario Inc., Port Colborne	0923029
923030 Ontario Inc., Port Colborne	0923030
923031 Ontario Inc., Port Colborne	0923031

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corporation Number Numero de la compagnie en Ontario
923311 Ontario Inc., Toronto	0923311
923313 Ontario Inc., Renfrew	0923313
923314 Ontario Inc., Kenora	0923314
923315 Ontario Inc., Kenora	0923315
923316 Ontario Inc., Kenora	0923316
923317 Ontario Inc., Kenora	0923317
1991-01-22	
923328 Ontario Limited, Bothwell	0923328
923329 Ontario Limited, Bothwell	0923329
1991-01-23	
Health One (South Ajax) Inc., Islington	0923279
L.K.N. Enterprises Inc., Etobicoke	0916363
O'Rattle Entertainment Inc., Bancroft	0923338
Private Pleasures Ltd., Etobicoke	0920236
Raywalt Feed Sales Ltd., Milton	0923339
1991-01-24	
Ouellet Catering Inc., Cardiff	0923345
Poltax Accounting & Business Consulting Inc., Toronto	0923348
The Buyer's Edge Inc., Toronto	0923349
923344 Ontario Inc., Sutton West	0923344
923346 Ontario Inc., Toronto	0923346
923347 Ontario Inc., Toronto	0923347
1991-01-25	
A. Beirness Trucking Inc., Angus	0923358
Bill Young Trucking Limited, Mississauga	0923356
Daniel G. Marshall Engineering Corporation, Holland Centre	0923355

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corporation Number Numero de la compagnie en Ontario
J. R. Berry Trucking Inc., Phelpston	0923357
Trinity Hotels & Resorts Inc., Nepean	0923354
1991-01-28	
Account-Tech Ltd, Welland	0923218
Jema Holdings (Sault) Ltd., Sault Ste Marie	0882364
M & J Oil Burner Service Ltd., Rosemont	0923207
882365 Ontario Inc., Sault Ste Marie	0882365
923144 Ontario Inc., North Augusta	0923144
1991-01-29	
Ajax Auto Parts Ltd., Ajax	0917949
ATS Towing Storage Ltd, Toronto	0917953
Blue Heron Bay Developments Ltd., Honey Harbour	0925311
Bytown Collision Centre Ltd., Ottawa	0924263
Durham Consulting & Installations Ltd., Port Perry	0917948
Ed Martin's Auto Glass Ltd., Kitchener	0925309
Greulich Auto Repair Ltd., Ayr	0925312
Hartlin Computer Systems Inc., Pembroke	0924264
J. L. Schmidt Haulage Inc., Kitchener	0925308

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corporation Number Numero de la compagnie en Ontario
K & R Paine Enterprises Inc., Newmarket .....	0923382
K.A.D.I. Retrofit Ltd., Ottawa .....	0924265
Leamington Outfit "N" Accessories Inc., Leamington .....	0916998
LLOC Holdings Limited, Ancaster .....	0919793
Pat's Printing Services Ltd., Burlington .....	0923383
Waste Wood Disposal Ltd., Dresden .....	0911845
911316 Ontario Inc., Barrie .....	0911316
916999 Ontario Limited, Blytheswood .....	0916999
917950 Ontario Ltd., Scarborough .....	0917950
917951 Ontario Inc., Port Perry .....	0917951
917954 Ontario Limited, Ajax .....	0917954
918820 Ontario Inc., Thorold .....	0918820
919791 Ontario Inc., Paris .....	0919791
919797 Ontario Inc., Hamilton .....	0919797
920208 Ontario Inc., Parry Sound .....	0920208
923261 Ontario Limited, Tillsonburg .....	0923261
923378 Ontario Inc., Callander .....	0923378
925310 Ontario Ltd., Kitchener .....	0925310
925313 Ontario Ltd., Woodstock .....	0925313
925314 Ontario Inc., Guelph .....	0925314
1991-01-30	
Belle Computers Sales Corp., Toronto .....	0929334
Windsor Wheels Soccer Inc., Windsor .....	0928405
Wmgsd Hunt Holdings Inc., Windsor .....	0928406
1991-01-31	
Abbott Productions Inc., Toronto .....	0929412
Adcom General Ltd., Toronto .....	0929500
Allied Packaging Systems Inc., Scarborough .....	0917958
Anchor Distributing Inc., Toronto .....	0929439
Anders Enterprises Inc., Milton .....	0929423
Armor-Shell Management Corporation., Downsview .....	0929402
Azza Design Studios Inc., Waterloo .....	0925333
B & B Pool And Spa Services Limited, Ancaster .....	0925414
Bandiera Jewellers Ltd., Woodbridge .....	0929415
Brass Security Inc, Guelph .....	0925329
BSM Trucking Inc., Pickering .....	0929467
Cansovus Enterprises Inc., Burlington .....	0925411
Cheung Shing Record (Overseas) Co. Limited, Mississauga .....	0929427
Claim Services Incorporated, Unionville .....	0929469
Comprehensive Legal Services Ltd., Toronto .....	0929411
Consam Inc., Cambridge .....	0925322
Dial-Rush Group Ltd., Hamilton .....	0925408
Dimar Enterprises Inc., Guelph .....	0929435
Docudisk Corporation, Mississauga .....	0929471
Droichead Inc., Newmarket .....	0924283
Dunfield Capital Corporation, Toronto .....	0929504
Emci Corporation, Toronto .....	0929466
Ever-Clean Carpet Care Ltd., Mississauga .....	0929391
Evergo Canada Inc., Scarborough .....	0929419
F.W. Radcliffe & Associates Inc., Mississauga .....	0929421

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corporation Number Numero de la compagnie en Ontario
Foxtees Productions Inc., Mississauga .....	0929465
Freswood Products Inc., Unionville .....	0929481
G.C. Transportation Consultants Inc., Scarborough .....	0917959
Goddard Randolph Marketing Strategy Inc., St Catharines .....	0918822
Golden Team Electronic Co. Ltd., Scarborough .....	0929517
Harrington, Smith Management Limited, Oakville .....	0925413
Helm Bros. Contracting Ltd., Kitchener .....	0925323
Hendervale Stables Ltd., Milton .....	0929413
Huroninvestinc., Arden .....	0920630
International Solidification Inc., Oakville .....	0929404
J & P Landreville Holdings Ltd., Gloucester .....	0924277
Jenica Holdings Inc., Burlington .....	0925418
Jimmy's Unisex Hair Design Ltd., North York .....	0929417
Kingston Capital Corp, Sydenham .....	0920631
Linotext Systems Inc., Toronto .....	0929396
M.P.T. Manufacturing Process Technologies Inc., Dresden .....	0911849
Magee & Sons Distributing Inc., Sudbury .....	0920045
Millway Mechanical Inc., Richmond Hill .....	0929424
Nam Hai Wholesale Bakers Ltd., Weston .....	0929430
Nello's Auto Service Inc., Woodbridge .....	0929416
Otto Cutts Consulting Inc., Thornhill .....	0929407
Patriot Management Ltd., Mississauga .....	0929432
Press-Maint Ltd., Uxbridge .....	0923284
Prestige Limousine Inc., Toronto .....	0929475
Prime Marketing & Promotions Inc., Toronto .....	0929426
Quinte Corporate Management Ltd., Belleville .....	0929477
Revive Industries Inc., Downsview .....	0929403
Signature Computer Corporation, Mississauga .....	0929472
Simkoa Corp. Limited, Newmarket .....	0929395
Simpson Neon Inc., Unionville .....	0929429
Sips Or Slips Restaurant & Marina Ltd., Tilbury .....	0928411
Sledman St. Leasing Corp., Woodbridge .....	0925330
Sobo Software Ltd., Toronto .....	0929394
Solar Plus Technology Ltd., Napanea .....	0920628
Solly's Pharmacy Inc., Kanata .....	0924281
Sports Books Publisher Inc., Toronto .....	0929385
Stanley Appleton Corporation, Sudbury .....	0920046
Star Sprinkler Inc., Brampton .....	0929397
Superior Art Editions Inc., Dundas .....	0925419
Sylve's Janitorial Services Inc., Stoney Creek .....	0925417
Synthese Group Inc., Scarborough .....	0929389
T.D.S. Janitorial Supplies Ltd., Callander .....	0929409
Technika International Trading (Canada) Inc., Hamilton .....	0925412

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corporation Number Numero de la compagnie en Ontario
The Great Hot Nut Experience Co. Ltd., Downsview .....	0929518
The Upholstery Centre Inc., Downsview .....	0929420
Trans Am Video Ltd., Toronto .....	0929390
Tri-Lite Moving Ltd., Rexdale .....	0925324
Ultramed Inc., Milton .....	0929499
Village Centre Diagnostic Services Inc., Toronto .....	0929502
Vodco Holdings Ltd., Gloucester .....	0924276
York Business Associates Inc., Thornhill .....	0929383
911322 Ontario Limited, Barrie .....	0911322
911323 Ontario Ltd., Cannington .....	0911323
920042 Ontario Limited, Valcaron .....	0920042
920043 Ontario Limited, Kapusksing .....	0920043
920044 Ontario Inc., Sudbury .....	0920044
920047 Ontario Limited, Sudbury .....	0920047
920629 Ontario Inc., Harrowsmith .....	0920629
920632 Ontario Limited, Kingston .....	0920632
920633 Ontario Limited, Kingston .....	0920633
920634 Ontario Limited, Kingston .....	0920634
920635 Ontario Limited, Kingston .....	0920635
922087 Ontario Limited, London .....	0922087
922088 Ontario Limited, London .....	0922088
922090 Ontario Limited, Grand Bend .....	0922090
922091 Ontario Limited, London .....	0922091
922092 Ontario Limited, London .....	0922092
922093 Ontario Inc., London .....	0922093
922095 Ontario Inc., London .....	0922095
922096 Ontario Limited, Ilderton .....	0922096
922097 Ontario Limited, London .....	0922097
923013 Ontario Limited, Brantford .....	0923013
923280 Ontario Inc., Mississauga .....	0923280
923281 Ontario Inc., Mississauga .....	0923281
923283 Ontario Inc., Mississauga .....	0923283
924278 Ontario Inc., Ottawa .....	0924278
924279 Ontario Inc., Ottawa .....	0924279
925321 Ontario Inc., Guelph .....	0925321
925327 Ontario Inc., Kitchener .....	0925327
925328 Ontario Inc., Collingwood .....	0925328
925331 Ontario Inc., Cambridge .....	0925331
925334 Ontario Inc., Waterloo .....	0925334
925409 Ontario Inc., Mississauga .....	0925409
925415 Ontario Inc., Hamilton .....	0925415
925420 Ontario Inc., Waterdown .....	0925420
925421 Ontario Limited, Burlington .....	0925421
926614 Ontario Limited, Norwood .....	0926614
926615 Ontario Limited, Bridgenorth .....	0926615
926616 Ontario Ltd, Lindsay .....	0926616
928409 Ontario Limited, Leamington .....	0928409
928410 Ontario Limited, Kingsville .....	0928410
929384 Ontario Limited, North York .....	0929384
929392 Ontario Inc., Toronto .....	0929392
929393 Ontario Inc., Orangeville .....	0929393
929406 Ontario Inc., Scarborough .....	0929406
929408 Ontario Inc., Toronto .....	0929408
929410 Ontario Limited, Toronto .....	0929410
929414 Ontario Limited, Toronto .....	0929414
929418 Ontario Ltd., Unionville .....	0929418
929425 Ontario Inc., Toronto .....	0929425
929428 Ontario Inc., Willowdale .....	0929428
929431 Ontario Limited, Oakville .....	0929431
929433 Ontario Inc., Toronto .....	0929433

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corporation Number Numero de la compagnie en Ontario	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corporation Number Numero de la compagnie en Ontario	Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corporation Number Numero de la compagnie en Ontario
929436 Ontario Limited, Toronto	0929436	Steel Control Services Ltd., Sudbury	0920049	Golden Horseshoe Mortgage And Financial Services Inc., Welland	0918826
929438 Ontario Inc., Toronto	0929438	Steel Tower Erectors Ltd., Sudbury	0920048	Graphic Imprints Ltd., Scarborough	0929880
929440 Ontario Inc., Don Mills	0929440	Techelectric Automation Inc., Burlington	0925427	Harris-Troy Design Build Limited, London	0922112
929442 Ontario Inc., Toronto	0929442	The Marlar Corporation, Hamilton	0925425	Homematrix Systems East Inc., Weston	0925431
929464 Ontario Limited, Thornhill	0929464	Watsons Chocolate Inc., Alexandria	0924292	Hye Financial Services Limited, Don Mills	0929874
929468 Ontario Ltd., Scarborough	0929468	Yorkland Farms Ltd., St Thomas	0922106	Il Gigante Fine Foods Inc., Woodbridge	0929879
929470 Ontario Ltd., Kitchener	0929470	911325 Ontario Ltd., Midland	0911325	Jaberian Installations Ltd., Cambridge	0925345
929474 Ontario Limited, Toronto	0929474	911328 Ontario Inc., Cookstown	0911328	Jenich Limited, Toronto	0929829
929478 Ontario Inc., Toronto	0929478	911329 Ontario Inc., Orillia	0911329	John W. Howard Pharmacies Ltd., Collingwood	0911332
929479 Ontario Inc., Toronto	0929479	917960 Ontario Ltd., Whitby	0917960	K V S Media Concepts Inc., Weston	0929818
929480 Ontario Inc., Toronto	0929480	918823 Ontario Inc., Welland	0918823	Kodan Electronics Ltd., Mississauga	0929876
929515 Ontario Limited, Don Mills	0929515	920050 Ontario Limited, Sudbury	0920050	Kriker Software Developments Ltd., Hamilton	0923262
929516 Ontario Inc., Markham	0929516	920637 Ontario Ltd., Kingston	0920637	Larry Hunt Cabinets Ltd., Thorndale	0922111
929519 Ontario Ltd., Markham	0929519	922099 Ontario Ltd., Strathroy	0922099	Lee & Kwan Trading Ltd., Markham	0929869
1991-02-01		922101 Ontario Inc., Exeter	0922101	Lombardo Janitorial Maintenance Ltd., North York	0929881
Add Learning To Systems Incorporated, Whitby	0917963	922102 Ontario Inc., Ingersoll	0922102	Mark-Michael Management Limited, Toronto	0929822
Balturn Productions Ltd., Oshawa	0917962	922108 Ontario Limited, London	0922108	Mend Consulting Ltd., Aurora	0929875
Briarhill Developments Inc., Alliston	0911326	924289 Ontario Inc., Ottawa	0924289	Metalogic Recycling Technologies Inc., Richmond Hill	0929877
Cambridge Volkswagen Leasing Inc., Cambridge	0925423	924290 Ontario Ltd., Ottawa	0924290	MJM Electric Limited, Ariss	0925342
Central Printers (Sudbury) Ltd., Sudbury	0920037	924293 Ontario Inc., Ottawa	0924293	Myles Mindham Jewellery Ltd., Toronto	0929865
Diversified Corporate Benefits Ltd., London	0922103	924296 Ontario Inc., Vanier	0924296	Nariman Bakers Ltd., Kanata	0924304
Divin Holdings Inc., Hamilton	0925426	924298 Ontario Inc., Ottawa	0924298	New Topmen (Canada) Inc., Markham	0929844
EWM Auto Tech Inc., Waterloo	0925336	925338 Ontario Inc., Kitchener	0925338	North South Mercantile Networking Inc., Markham	0929838
Federated Warranty Service Co. Ltd., Unionville	0925337	926618 Ontario Inc., Lakefield	0926618	On White Consulting Inc., Toronto	0929815
J & J Land Development Ltd., Leamington	0928413	1991-02-04		P.J. MacMillan Services Ltd., Niagara Falls	0929883
J.J. Pilon Realty Corporation, Hamilton	0925424	Accu-Air Balance Co. (1991) Inc., Windsor	0928414	P.V.A.W. Tax Services Inc., Markham	0929846
Jenron Tax Service Ltd., Peterborough	0926613	Aerowear Inc., London	0922116	Partsalidis Investments Ltd., Mississauga	0929866
Joanne's Clothes At Hand Inc., Ottawa	0924295	Alpha Computer Solutions Inc., London	0922115	Petric Contracting Ltd., Toronto	0929825
John G. Hughes Construction Ltd., Cavan	0926617	And-Cam Contracting Ltd., Mississauga	0929836	Phase IV Inc., Mississauga	0929861
Jooste Associates Inc. - Architect, Ottawa	0924299	Anderson's Art Store Inc., London	0922117	Planet Hair Inc., Peterborough	0929867
Kathies' Fabrics & Sewing Centre Inc., Gloucester	0924297	B. Rife Mortgage Brokers Inc., Scarborough	0929820	Print Canada Limited, Markham	0929852
Khabbaz Management Corp., Gloucester	0924300	Bavaro & Scoppio Trading Company Ltd., Toronto	0929840	Priority 01 Training Products Inc., London	0922120
Labriola Holdings Limited, Brooklin	0917961	Bio-Flox Corporation, Toronto	0929832	Rae Office Interiors Inc., Brampton	0929833
McNiece Innovation Associates Ltd, London	0922109	Builders Group Limited, Toronto	0929821	S.S. Buckley Developments Inc., Lindsay	0929826
Neziol Financial Services Inc., Brantford	0925422	Caley-Neal Investments Limited, Perkinsfield	0929864	Sentinel Maintenance Incorporated, Toronto	0929823
Okinawan School Of Martial Arts Inc., Mossley	0922098	Carment-Klym Associates Inc., Barrie	0929854	Shu Yan Holdings Inc., Wawa	0882368
Oncall Restoration Inc., Ajax	0917964	CMT (Canada) Inc., Scarborough	0929824	Slovins Contracting Ltd., Mississauga	0929855
Orca Tax Advisory Inc, Ottawa	0924291	Cobourg Gas & Wash Inc., Cobourg	0929848	Southside Publishing Studios Inc., Toronto	0929856
PHM Plumbing Limited, Nepean	0924294	Crain Distributors Inc., Ottawa	0924302	Sports Edge Inc., Downsview	0929860
Power Of Nature (P.O.N.) Ltd., Hamilton	0925428	D. D. Holdings (Strathroy) Inc., Strathroy	0911852	Statcon Project Management Ltd., Markham	0929837
Ramity Holdings Inc., Niagara Falls	0918824	Data Access Technologies Inc., North York	0929843	Strank Construction Group Inc., Chatham	0929884
Rancat Holdings Ltd., London	0922107	Davon Sales Inc., Woodstock	0922113	Supremeplace Inc., Markham	0929845
Ruth MacDonald & Associates Inc., Ottawa	0924231	Devine Limousine Corp., Toronto	0929863		
Scandcorp Inc., Thunder Bay	0917230	Dominion Warehousing & Distribution Services Ltd., Rexdale	0925341		
Sherwood Hill Investments Inc., London	0922105	East Street Investments Inc., Toronto	0929842		
Shore To Slope Management Services Inc., Collingwood	0911330	Economy Auto Sales And Services Corp., London	0922118		
		Evision Star Telecommunications Inc., Downsview	0929835		
		Four Seasons Mechanical Systems Ltd., Collingwood	0911333		
		G.H.T. Home Improvements Inc., Oakville	0929858		

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Tevtel Contractors Ltd., Ajax	0929831	Best Kept Secrets Lingerie Inc., Woodbridge	0929986	MDL Thunder Bay Limited, Thunder Bay	0917231
The Franell Group Inc., St Catharines	0918825	Bhatti Enterprises Inc., Rexdale	0929912	Meatline Corporation, Oakville	0929913
Thorndale Investments Inc., Ancaster	0925430	Bick Financial Management Corporation, Ancaster	0925436	Meta Dos Leitoes Ltd., Toronto	0929971
Transmaster Freight Services Ltd., Mississauga	0918827	Big O Trading Inc., Toronto	0929909	MPM Industries Corporation, Willowdale	0929904
Trinity Gas Bar Limited, Richmond Hill	0929847	Blair Davidson Distribution Inc., Caledon	0929994	Mur-Way Natural Gas Services Ltd., Thornhill	0925432
Vertimar Software Systems Inc., Oakville	0929859	Boblaic Properties (14) Corp., Toronto	0929936	Nella Cutlery (Mississauga) Inc., Mississauga	0925438
Yellow Ribbon Enterprises Inc., Williamstown	0929878	Bond Street Trading Inc., North York	0929924	Nella Cutlery (Toronto) Inc., Mississauga	0925437
115 B. F. Rd. Holdings Inc., Barrie	0911331	Brian Hammond Enterprises Inc., Unionville	0929993	Oberon Productions Inc., Toronto	0929903
911851 Ontario Limited, Sarnia	0911851	C.D. High Tech Thermal Glass Inc., Concord	0929917	Omcan Manufacturing & Distributing Company Inc., Mississauga	0925433
911853 Ontario Ltd., Mooretown	0911853	Camice Ltd., Downsview	0929900	Par-Deck Services Inc., Scarborough	0929931
918828 Ontario Limited, Niagara Falls	0918828	Card Circuit Ltd., Don Mills	0929948	Precious Moments Balloons Limited, Nobleton	0929953
920638 Ontario Ltd., Kingston	0920638	Cherry Consultants (Antigua) Inc., Agincourt	0929896	PRM Planning Inc., Toronto	0929919
922110 Ontario Limited, London	0922110	Chex International Sales Limited, Toronto	0929907	Proway Development Consultants Ltd., Toronto	0929992
922114 Ontario Inc., London	0922114	City-Wide Mortgage And Financial Group Inc., Toronto	0929915	R. Max Foods Ltd., Brampton	0929905
922119 Ontario Limited, Strathroy	0922119	City-Wide Real Estate Services Inc., Toronto	0929914	Rakla Tires Inc., Richmond Hill	0929928
922121 Ontario Inc., London	0922121	Concord Furniture & Appliances (Geary) Limited, Toronto	0929935	Redge Sheet Metal Limited, Hamilton	0925439
922122 Ontario Ltd., London	0922122	Copies Inc., Ottawa	0924308	Rose Massey Photofinishers & Enterprises Inc., Toronto	0929941
923038 Ontario Limited, Stevensville	0923038	Dream Fish Productions Inc., Toronto	0929961	Roussin Real Estate Consultants Inc., Kenora	0929955
924303 (Ontario) Inc., Gloucester	0924303	Empey Enterprises Ltd., Brownsville	0922129	S.G. Meat Sales Inc., Thornhill	0929930
924305 Ontario Inc., Nepean	0924305	Eureka Lighting Ltd., Toronto	0929894	Sandham Engineering Ltd., Waterloo	0925348
925343 Ontario Inc., Waterloo	0925343	Fortress Trucking Limited, Alma	0925349	Selcor Realty Ltd., Lindsay	0929897
925344 Ontario Ltd., Owen Sound	0925344	Gerard MacH Consulting Services Inc., Ottawa	0924309	Stanford Performance Inc., Pickering	0929943
925429 Ontario Inc., Toronto	0925429	Glenrak Diet Centers Inc., Toronto	0929940	Strangeways Art & Design Ltd., Toronto	0929927
929814 Ontario Inc., Toronto	0929814	Hamilton Northern Success Centre Inc., Hamilton	0925441	Suntax Services Inc., Mississauga	0929906
929816 Ontario Ltd., Mississauga	0929816	Hamilton Success Group Inc., Hamilton	0925440	Swellmark Canada Inc., Scarborough	0929939
929817 Ontario Inc., Markham	0929817	Henderson Brokerage Inc., Ottawa	0924307	T & C International Catering & Groceries Ltd., Scarborough	0929918
929819 Ontario Inc., Markham	0929819	History Hill General Contractors Inc., North York	0929923	Taxmart Inc., Toronto	0929959
929827 Ontario Ltd., Mississauga	0929827	Hoodstock Holdings Inc., Burlington	0925442	Telk Communications Inc., Scarborough	0917966
929828 Ontario Limited, Toronto	0929828	How Cam Holdings Ltd., Port Carling	0929911	Teragram Management Ltd., Ancaster	0925435
929830 Ontario Ltd., Pickering	0929830	Il Barile Ristorante Inc., Toronto	0929916	Three DB Developments Inc., London	0922130
929834 Ontario Limited, Toronto	0929834	Image Makeover Inc., Toronto	0929945	Toucan Agency Tucan Inc., Toronto	0929974
929839 Ontario Inc., Richmond Hill	0929839	Inland Insulation Ltd., Walkerton	0929898	Trio Transport Systems Inc., Toronto	0929970
929841 Ontario Inc., Etobicoke	0929841	Insomniac Motion Pictures Inc., Toronto	0929891	Tru-View Optical Inc., Mississauga	0929956
929849 Ontario Ltd., Toronto	0929849	International Network Consumers Inc., Brampton	0929969	Turned: Automated Products Inc., Elmira	0925346
929850 Ontario Inc., Toronto	0929850	J.B. Insurance Services Inc., Oakville	0929853	Vinlinar Fashions Inc., Scarborough	0929957
929851 Ontario Inc., Milton	0929851	Kawartha Komm Inc., Lakefield	0926619	Visual Solutions Inc., Nepean	0924314
929857 Ontario Limited, Willowdale	0929857	Kingston Road Lumber (1991) Limited, Willowdale	0929892	VMB Advertising Services Inc., Etobicoke	0929938
929862 Ontario Inc., Toronto	0929862	Lebedz Farms Ltd., West Lorne	0922127	YCL Application Solutions Inc., Markham	0929980
929868 Ontario Limited, North York	0929868	LLA Systems Technologies Inc., North York	0929967	911854 Ontario Inc., Courtright	0911854
929870 Ontario Ltd., Mississauga	0929870	Lloyd Shaw & Son (Cambridge) Inc., Cambridge	0925347	918829 Ontario Inc., Niagara Falls	0918829
929871 Ontario Inc., Markham	0929871	Lomar Productions Inc., Toronto	0929899	920051 Ontario Inc., Timmins	0920051
929872 Ontario Inc., Markham	0929872	M.J. Worswick Analysis Ltd., Kanata	0924312	920639 Ontario Corporation, Perth Road	0920639
929873 Ontario Inc., Markham	0929873	Mainstreet Fashions Ltd., Concord	0929944		
929882 Ontario Inc., Woodbridge	0929882				
929885 Ontario Inc., Dryden	0929885				
929886 Ontario Inc., Toronto	0929886				
929887 Ontario Limited, Toronto	0929887				
1991-02-05					
A. Clarion Retirement Home Inc., Hamilton	0929937				
Amanti Bridal & Gift Inc., Mississauga	0929958				
Anset Contractors Ltd., Brampton	0929949				
Augment Services Ltd., Sarnia	0911855				
Ball's Auto Repair & Propane Services (Kingston) Ltd., Kingston	0920640				
Benedet Computer Consultants Inc., Ajax	0929910				

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922123 Ontario Ltd., Brownsville .	0922123	Brunswick Steam Carpet Cleaning Services Ltd., Toronto . . . . .	0929998	Mocom International Inc., Thornhill . . . . .	0929978
922124 Ontario Ltd., Brownsville .	0922124	C & D Squared International Licensing Of Promotional Products Ltd., Etobicoke . . . . .	0930058	Mountain Builders Ltd., Toronto . .	0930059
922125 Ontario Inc., Woodstock . .	0922125	C.V.G. Investments Ltd., Trenton .	0930031	Naklik Productions Inc., Ottawa . .	0924317
922126 Ontario Limited, London . . .	0922126	Camilew Enterprises Ltd., Sudbury	0920052	Newlife Developments Inc., North York . . . . .	0930061
922128 Ontario Inc., Corunna . . . .	0922128	Carl Gascho Holdings Inc., Kitchener . . . . .	0925350	NNC Athletic Sales Inc., Richmond Hill . . . . .	0930021
924310 Ontario Inc., Nepean . . . . .	0924310	China Travel & Tours (Toronto), Inc., Toronto . . . . .	0929977	On-Sight Contracts Division Inc., Toronto . . . . .	0929999
924311 Ontario Inc., Vanier . . . . .	0924311	City Dye Works Inc., Toronto . . . .	0930013	Paris Anthony & Mondrowitz Advertising Inc., North York . . .	0930011
924313 Ontario Inc., Ottawa . . . . .	0924313	Clerc Environmental Inc., Etobicoke . . . . .	0929976	Paris Family Medical Clinic Inc., Paris . . . . .	0925355
925434 Ontario Inc., Hamilton . . . .	0925434	D.C.T. Services Inc., North York . .	0930048	Pho 54 And Bakery Ltd., Toronto . .	0930022
925443 Ontario Inc., Hamilton . . . .	0925443	Deborger Farms Ltd., Watford . . .	0911857	Powahgen Inc., Toronto . . . . .	0930009
928416 Ontario Inc., Wheatley . . . .	0928416	Deer Flight Limited, Burlington . .	0930027	Quad-Lite Inc., Brampton . . . . .	0930055
928417 Ontario Ltd., Windsor . . . .	0928417	Die-Punch Industries Inc., Mississauga . . . . .	0930037	Quake Audio Inc., Wallacetown . . .	0922136
929888 Ontario Inc., Woodbridge . . .	0929888	Direct Tele-Data Limited, Hamilton . . . . .	0925444	Rann's Caribbean Restaurant Inc., Etobicoke . . . . .	0930016
929889 Ontario Inc., Mississauga . . . .	0929889	Dodaro Landscaping Inc., Woodbridge . . . . .	0930039	Rebeau (Canada) Jewellery Ltd., Toronto . . . . .	0930050
929890 Ontario Limited, Toronto . . . .	0929890	Dollar Bargain Ltd., Oakville . . . .	0929988	Resolution Software Consultants Inc., Mississauga . . . . .	0930047
929893 Ontario Limited, Oakville . . .	0929893	Electruss Design Corporation, Toronto . . . . .	0930049	Robotechnik Inc., Windsor . . . . .	0928418
929895 Ontario Limited, Thornhill . . . .	0929895	Elite Computer Training & Learning Centre Inc., Markham . . . . .	0930033	Ron Brooks Associates Inc., Rexdale . . . . .	0929975
929901 Ontario Inc., Moonstone . . . .	0929901	Emitek International (Canada) Co. Ltd., North York . . . . .	0930020	Roy Gascho Holdings Inc., Kitchener . . . . .	0925351
929902 Ontario Inc., Toronto . . . . .	0929902	Felt Fedora Holdings Inc., Collingwood . . . . .	0911334	Scorpio Fire Protection Inc., Woodbridge . . . . .	0929979
929908 Ontario Ltd., Toronto . . . . .	0929908	Flowers 'N Such By Davis Ltd, Brockville . . . . .	0920641	Sim-One Services Inc., Woodbridge . . . . .	0930017
929920 Ontario Inc., Toronto . . . . .	0929920	Fontaine Beverage Corporation, Concord . . . . .	0930056	Southern Motor Cars Inc., Chatham . . . . .	0922131
929921 Ontario Inc., Toronto . . . . .	0929921	Freloz Investments Inc., Keswick . .	0930036	Sporting Beat Publications Inc., Toronto . . . . .	0930007
929922 Ontario Inc., Richmond Hill . . . . .	0929922	Gascho Automotive Limited, Kitchener . . . . .	0925353	Strathcan Holdings Limited, Concord . . . . .	0930023
929925 Ontario Inc., Scarborough . .	0929925	Genico Import-Export Corp., Woodbridge . . . . .	0930040	Tim Biloski Holdings Inc., Thunder Bay . . . . .	0917232
929926 Ontario Inc., Scarborough . .	0929926	Goldco Refractories Inc., Weston . .	0930024	Toronto Fabric Dye Inc., Scarborough . . . . .	0930025
929929 Ontario Limited, Concord . . . .	0929929	Gorbong Investments Inc., Toronto .	0930019	Tous Chefs Inc., Burford . . . . .	0922132
929932 Ontario Limited, Toronto . . . .	0929932	Gordon Mabey Printing Ltd., Toronto . . . . .	0930053	Video Technologies (Ottawa) Ltd., Ottawa . . . . .	0924315
929933 Ontario Inc., Toronto . . . . .	0929933	Great West Carriers Inc., Guelph . .	0925352	Xcell Automotive Repairs Inc., Brampton . . . . .	0930005
929934 Ontario Ltd., Erin . . . . .	0929934	Gref Inc., Toronto . . . . .	0929990	Xermetics Inc., Toronto . . . . .	0930060
929942 Ontario Inc., Scarborough . . .	0929942	Hastings & Prince - Edward Capital Corporation Ltd., Trenton . . . . .	0930032	728-740 Bank Street Holdings Incorporated, Ottawa . . . . .	0924316
929946 Ontario Limited, Woodbridge . . . . .	0929946	Hidden Valley Northern & Eastern Small Business Development Corporation, Don Mills . . . . .	0930008	911856 Ontario Limited, Corunna . .	0911856
929947 Ontario Ltd., North Bay . . . .	0929947	Horizon Bricklayers Contractors Ltd., Woodbridge . . . . .	0930057	917967 Ontario Inc., Oshawa . . . .	0917967
929950 Ontario Limited, Concord . . . .	0929950	Humber Marsh Management Group Limited, Toronto . . . . .	0930030	920642 Ontario Inc., Glenburnie . .	0920642
929951 Ontario Limited, Woodbridge . . . . .	0929951	Infopool International Information Systems, Inc., Etobicoke . . . . .	0930028	920643 Ontario Inc., Napanee . . . .	0920643
929952 Ontario Limited, Woodbridge . . . . .	0929952	J.A. Transportation Inc., Prescott . .	0924318	922133 Ontario Limited, Ilderton . . .	0922133
929954 Ontario Limited, Toronto . . . .	0929954	Jagbir Enterprises Inc., Etobicoke . .	0930001	922134 Ontario Limited, Lucan . . . .	0922134
929960 Ontario Limited, Vaughan . . . . .	0929960	Jud's Carpet Installation Ltd., Niagara Falls . . . . .	0918830	922135 Ontario Limited, Palgrave . . .	0922135
929962 Ontario Inc., Toronto . . . . .	0929962	K.G. Bentley Management Services Inc., London . . . . .	0922137	922138 Ontario Limited, London . . .	0922138
929963 Ontario Limited, Richmond Hill . . . . .	0929963	Knechtel Business Services Ltd., Etobicoke . . . . .	0929995	922139 Ontario Limited, London . . .	0922139
929964 Ontario Limited, Mississauga . . . . .	0929964	Livier Inc., Windsor . . . . .	0928419	925354 Ontario Limited, Cambridge . . . . .	0925354
929965 Ontario Limited, Mississauga . . . . .	0929965	Marcie MacNeil Stables Inc., Richmond Hill . . . . .	0930052	925445 Ontario Inc., Waterford . . .	0925445
929966 Ontario Limited, Scarborough . . . . .	0929966			926620 Ontario Inc., Peterborough . .	0926620
929968 Ontario Inc., King City . . . .	0929968			928420 Ontario Ltd., Harrow . . . . .	0928420
929973 Ontario Inc., North York . . . .	0929973			929989 Ontario Ltd., Toronto . . . . .	0929989
929981 Ontario Inc., Bolton . . . . .	0929981			929996 Ontario Inc., Mississauga . . .	0929996
929982 Ontario Limited, Toronto . . . .	0929982			929997 Ontario Ltd., Mississauga . . .	0929997
929983 Ontario Limited, Toronto . . . .	0929983			930000 Ontario Limited, Whitby . . . .	0930000
929984 Ontario Limited, Toronto . . . .	0929984			930003 Ontario Ltd., Toronto . . . . .	0930003
929985 Ontario Limited, Mississauga . . . . .	0929985			930004 Ontario Limited, Toronto . . .	0930004
929987 Ontario Inc., North York . . . .	0929987				
929991 Ontario Limited, Mississauga . . . . .	0929991				
1991-02-06					
AJ's Hangar Inc., Kingston . . . . .	0920644				
Aluprint Canada Inc., Don Mills . . .	0930002				
Argo Cash Computing Inc., Woodbridge . . . . .	0930046				
Brazcan Aluminum Inc., Scarborough . . . . .	0930045				
Bruce Biloski Holdings Inc., Thunder Bay . . . . .	0917233				

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930006 Ontario Limited, Mount Brydges .....	0930006
930012 Ontario Inc., Thornhill ...	0930012
930014 Ontario Limited, Mississauga .....	0930014
930015 Ontario Limited, Scarborough .....	0930015
930018 Ontario Inc., North Bay ..	0930018
930026 Ontario Inc., Woodbridge ..	0930026
930029 Ontario Limited, Toronto ..	0930029
930038 Ontario Limited, Toronto ..	0930038
930041 Ontario Ltd., Keswick ....	0930041
930042 Ontario Ltd., Scarborough	0930042
930043 Ontario Ltd., Rexdale ....	0930043
930044 Ontario Ltd., Malton .....	0930044
930051 Ontario Limited, Thornhill	0930051
930054 Ontario Ltd., Richmond Hill .....	0930054
1991-02-07	
Accommodation Finders Realty Inc., North York .....	0930089
Albert Powell Group Homes Inc., Oakville .....	0930094
Albion Optical Ltd., Toronto .....	0930130
Aromax Flavor Seasoning Inc., Scarborough .....	0930150
Assistors Electronic Business Systems Inc., Mississauga .....	0930072
Bevco Systems Inc., Scarborough ..	0930068
Boonstra & Sons Ltd., Oshawa ...	0930074
Cambridge Personnel Inc., Cambridge .....	0930142
Canadian Primrose Seed Growers Inc., Guelph .....	0930081
CBI Medical International (Edmonton) Inc., Toronto .....	0930070
Dale Harsell Investments Inc., North York .....	0930097
Dave Brooks Construction Incorporated, Utterson .....	0930157
Delhi Auto Sales Ltd., Delhi .....	0930082
East Horizon Realty Inc., Toronto ..	0930077
Ferant Paving Ltd., Toronto .....	0930078
Garc International Inc., Downsview .....	0930120
Genvita Inc., Toronto .....	0930113
Gordon A. Scott Consulting Ltd., Mississauga .....	0930132
Growth Inc., St Catharines .....	0930143
Horsemen International Ltd., Toronto .....	0930151
Howran Management Inc., Markham .....	0930102
Integra Investigation Services Ltd., Toronto .....	0930156

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corporation Number Numero de la compagnie en Ontario
International Iron Recovery Inc., Markham .....	0930149
J.D. Sims Technical Services Limited, Toronto .....	0930108
J.D. Sims Ventures Limited, Toronto .....	0930107
Jacmar Graphics Inc., Oakville ...	0930088
Josef Schon & Sons Masonry Contractors Inc., Belleville ....	0930147
Jotami Inc., North York .....	0930092
Keith Bray Associates Ltd., Toronto .....	0930129
L.P. Woodworking Inc., Weston ..	0930067
Lifetime Marketing Group Ltd., Etobicoke .....	0930123
Maplecliffe General Contracting Inc., Scarborough .....	0930144
Marcelville Antiques & Reproductions Ltd., Penetanguishene .....	0930135
Mark IV Interiors Inc., Toronto ...	0930138
Mayan Investments Inc., Toronto .....	0930085
Mclsaac Brick Systems Of Toronto Inc., Etobicoke .....	0930105
Paklok Restaurant Limited, Thornhill .....	0930076
Panel Decor Inc., Oakville .....	0930109
Parkway Frames And Arts Gallery Ltd., Mississauga .....	0930065
Pizzawings Restaurants Canada Inc., Newmarket .....	0930066
RC Movies & Muncheez Inc., Pickering .....	0930063
Regina Hill Developments Inc., Toronto .....	0930104
Repair Management Inc., Willowdale .....	0930090
Resident Handiworks Handyman Services Ltd., Oakville .....	0930095
RMG Consultants Inc., Richmond Hill .....	0930127
Ron Demers Construction Ltd., Clinton .....	0930137
Ronitt Enterprises Ltd., Willowdale .....	0930084
Roofsavers Inc., Downsview ....	0930062
Rui's Auto Repairs Ltd., Toronto ..	0930100
S. R. & J. Furniture Distributing Inc., Toronto .....	0930121
S.D. & G. Plumbing, Heating & Electrical Ltd., Cornwall .....	0930099
Sun Tung Lok Trading Co Ltd., Mississauga .....	0930115
Swan-Tek Inc., Holland Landing ..	0930079

Name of Corporation & Registered Office Nom de la compagnie Bureau	Ontario Corporation Number Numero de la compagnie en Ontario
Tarad Corporate Construction Limited, Toronto .....	0930119
The Million Dollar Forum Inc., Willowdale .....	0930112
The North American Gift & Greeting Company Inc., Don Mills .....	0930141
Theo Melady Farms Ltd., Dublin ..	0930133
Tridecca Development Corporation, Toronto .....	0930103
Triple Play Promotions Inc., Scarborough .....	0930122
UCS United Courier Service Ltd., Etobicoke .....	0930139
Ultimate Success Technologies Inc., Oshawa .....	0930075
W.C.A. Towing & Recovery Inc., Mississauga .....	0930124
Working Apparel Ltd., Tweed ....	0930146
930064 Ontario Ltd., Oakville ....	0930064
930069 Ontario Inc., Concord ....	0930069
930071 Ontario Inc., Toronto ....	0930071
930073 Ontario Limited, Don Mills .....	0930073
930083 Ontario Inc., Ottawa .....	0930083
930086 Ontario Inc., Bramalea ...	0930086
930091 Ontario Inc., Toronto ....	0930091
930093 Ontario Ltd., Toronto ....	0930093
930096 Ontario Inc., Oakville ....	0930096
930098 Ontario Ltd., North Bay ..	0930098
930106 Ontario Inc., Scarborough	0930106
930110 Ontario Inc., Burlington ..	0930110
930111 Ontario Limited, Etobicoke .....	0930111
930114 Ontario Limited, Pickering	0930114
930116 Ontario Inc., Scarborough	0930116
930117 Ontario Incorporated, Toronto .....	0930117
930118 Ontario Ltd., Brampton ..	0930118
930125 Ontario Inc., North York ..	0930125
930126 Ontario Inc., North York ..	0930126
930128 Ontario Limited, Brampton	0930128
930131 Ontario Limited, Toronto ..	0930131
930134 Ontario Limited, North York .....	0930134
930136 Ontario Inc., Toronto ....	0930136
930140 Ontario Limited, Etobicoke .....	0930140
930145 Ontario Inc., Willowdale ..	0930145
930148 Ontario Ltd., London ....	0930148
930152 Ontario Inc., Willowdale ..	0930152
930154 Ontario Inc., Willowdale ..	0930154
930155 Ontario Inc., Willowdale ..	0930155
930158 Ontario Limited, Mississauga .....	0930158

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

## Certificates of Incorporation Issued Certificats de constitution delivres

NOTICE IS HEREBY GIVEN that, under the *Co-operative Corporations Act*, a certificate of Incorporation has been issued to:

AVIS EST PAR LES PRESENTES DONNE qu'en vertu de la *Loi sur les coopératives* un certificat de constitution a été délivré à :

Name of Corporation and Head Office  
Nom de la compagnie et siège social

1991-1-25  
Cooperative Para-Scolaire Vanier  
Co-operative School-Age Program Inc., Vanier  
1991-1-31  
Oak Park Co-operative Children's Centre, Inc., London  
1991-2-4  
Nairn and District Co-operative Playschool Incorporated, Ailsa Craig

C. N. H. WILSON,  
Director, Credit Unions and  
Co-operatives Services Branch  
Ministry of Financial  
Institutions  
Directeur, Direction des  
Caisses populaires et des  
coopératives  
Ministère des Institutions  
financières

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## Certificates of Amalgamation Certificats de fusion

NOTICE IS HEREBY GIVEN that, a certificate of amalgamation under the *Business Corporations Act, 1982* has been endorsed: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription du certificat de fusion faite en vertu de la *Loi de 1982 sur les compagnies*. La date d'entrée en vigueur précède la liste des compagnies visées.

Name of Amalgamated Corporation: Amalgamating Corporations	Ontario Corporation Number
Dénomination sociale de la compagnie issue de la fusion :	Numéro de la compagnie en Ontario
Compagnies qui fusionnent	

1991-1-25	
British Gas Holdings (Canada) Limited:	928850
British Gas Holdings (Canada) Limited, A.J. Barnes Underwriting Agency Limited	
The Manson Group Ltd./Le Groupe Manson Ltee:	928796
885764 Ontario Inc., National Construction Company Inc.	
928834 Ontario Limited:	928834
749539 Ontario Limited, 907031 Ontario Inc.	
1991-1-27	
Oshawa Properties Limited:	928852
Oshawa Properties Limited, Marchland Holdings Limited Compagnie de Gestion Marchland Limitee	
1991-1-29	
Donald William Brooks Enterprises Ltd.:	917952
Donald William Brooks Enterprises Ltd., 708981 Ontario Limited	
1991-1-30	
929288 Ontario Inc.:	929288
547553 Ontario Inc., Bio Products Ltd.	
1991-1-31	
Al Munro Limited:	928141
Al Munro Limited, Foulis Castle Arabians Inc.	
Brant Telephone Inc.:	919795
Brant Telephone Co. Inc., Brant Telephone Systems Ltd., Brant Telephone Inc.	

Name of Amalgamated Corporation: Amalgamating Corporations	Ontario Corporation Number
Dénomination sociale de la compagnie issue de la fusion :	Numéro de la compagnie en Ontario
Compagnies qui fusionnent	

Brinkman Investments Ltd.:	911796
Brinkman Investments Ltd., Brinkman Electric Inc.	
Bronte Whaley Insurance Brokers Inc.:	929458
Bronte Whaley Insurance Brokers Inc., C. R. Whaley & Associates Insurance Brokers Inc.	
Camalex Holdings Inc.:	929453
765677 Ontario Limited, 605011 Ontario Limited	
Combelynn Investments Inc.:	918809
Combelynn Investments Inc., Buckley & Combe Limited	
Dehan EDP Consulting Ltd.:	929434
Dehan EDP Consulting Ltd., Microcad Systems Limited	
D'Eon Corporation:	929400
835605 Ontario Inc., D'Eon Corporation	
Emilian Jewellery Limited:	928957
Emilian Jewellery Limited, The Emslo Corporation	
Hockley Valley Tree Farms Inc.:	929441
835456 Ontario Limited, Hockley Valley Tree Farms Inc.	
Galvcast Manufacturing Inc.:	929450
Galvcast Manufacturing Inc., Ber-Lyn Enterprises Ltd.	
Joe-Dale Investments Inc.:	929448
Joe-Dale Investments Inc., 607475 Ontario Inc.	
John Roberts Clothier Inc.:	926610
Streets For Men Inc., 564157 Ontario Inc.	
Marepar Holdings Limited:	917228
Marepar Holdings Limited, Blakey-Spencer Management Limited	
Precision Packaging Company Inc.:	929371
Precision Packaging Company Inc., P.P.C Holdings Inc., Instant Temp Inc., 569567 Ontario Inc.	
Sheila M. Enterprises Inc.:	929449
Sheila M. Enterprises Inc., 607477 Ontario Inc.	
Solowka Corporation:	929401
835603 Ontario Inc., Solowka Corporation	
The New Toronto Surplus Centre Limited:	928906
The New Toronto Surplus Centre Limited, The New Toronto Surplus Centre (Oakville) Limited	
Turnock Corporation:	929398
835604 Ontario Inc., Turnock Corporation	
Wm. Taylor Graphics Ltd.:	929270
Wm. Taylor Graphics Ltd., 529306 Ontario Limited	
809 Westmount Towers II Inc.:	929222
708 Westmount Towers II Inc., 809 Westmount Towers II Inc.	
919770 Ontario Inc.:	919770
672315 Ontario Inc., 547552 Ontario Inc.	
920627 Ontario Limited:	920627
426054 Ontario Limited, Footloose Bootique Ltd.	
929351 Ontario Limited:	929351
517084 Ontario Limited, Janice Lawrence Investments Limited	
929375 Ontario Inc.:	929375
L & D Smith Ltd., 530959 Ontario Inc.	
929399 Ontario Limited:	929399
835824 Ontario Inc., 688616 Ontario Limited	
1991-2-1	
American Louver of Canada Limited:	929482
American Louver of Canada Limited, Bevbas Enterprises Inc.	
Canbake Restaurant Limited:	929501
904975 Ontario Limited, Canbake Restaurant Limited	
Chemical Equipment Fabricators Limited:	929437
Chemical Equipment Fabricators Limited, 921764 Ontario Limited	
Cheppa Limited:	929476
Cheppa Limited, Cheppa Security Corporation	

Name of Amalgamated Corporation: Amalgamating Corporations Dénomination sociale de la compagnie issue de la fusion : Compagnies qui fusionnent	Ontario Corporation Number Numéro de la compagnie en Ontario
Classic Building Maintenance Inc.: . . . . .	928847
Classic Building Maintenance Inc., Jonwab Holdings Limited	
Cosmoda Inc.: . . . . .	929571
Cosmoda Inc., Cosmoda Think Tank Group Inc., Menceles Management Inc.	
Craft Interiors Ltd.: . . . . .	929567
Faustco Holdings Inc., 855759 Ontario Limited	
Damside Developments Ltd.: . . . . .	928855
Damside Developments Ltd., 927004 Ontario Inc.	
Dixie Halton Industrial Supply Co. Ltd.: . . . . .	929581
Dixie Industrial Supply Company Limited, Halton Industrial Supplies Ltd.	
Finchers Limited: . . . . .	929806
Finchers Limited, Fincher Holdings (Goderich) Inc.	
G. C. F. Office Services Limited: . . . . .	928324
G. C. F. Office Services Limited, Gocarbar Office Services Limited	
Johnvince Foods Ltd.: . . . . .	929376
Johnvince Foods Ltd., Nicklen Food Products Inc.	
Kelhold Investments Inc.: . . . . .	919531
The First Lawton Holding Corporation, Kelhold Investments Inc., Irkell Investments Limited	
Laserdata Technology Inc.: . . . . .	929533
815901 Ontario Inc., Laserdata Technology Inc.	
Leasetech Ltd.: . . . . .	929506
Leasetech Ltd., Leasetech Inc., ICC International Computer Consulting & Leasing Ltd.	
M B Services Corporation: . . . . .	929524
M B Holdings Inc., M B Services Corporation, 581473 Ontario Limited	
M. Louise Schaefer Holdings Ltd.: . . . . .	926432
M. Louise Schaefer Holdings Ltd., J. B. Tudor Limited	
Miloma Investments Ltd.: . . . . .	929546
Miloma Investments Ltd., Jamloy Holdings Inc.	
Original Machine Tools Inc.: . . . . .	929584
Okam Manufacturing Inc., Original Machine Tools Inc.	
Osta Management Services Limited: . . . . .	918789
Osta Management Services Limited, The Admiral's Corner Inc.	
Pedi-Pak Products Canada Inc.: . . . . .	929318
Pedi-Pak Products Canada Inc., Es-Kay Management Services Ltd.	
Petro Maintenance Limited: . . . . .	929386
766904 Ontario Limited, 788449 Ontario Ltd., Petro Maintenance Services Limited	
The Professional Testers Group Inc.: . . . . .	929535
653023 Ontario Limited, 660344 Ontario Limited	
RAS Inc.: . . . . .	928071
Gordon F. Russell Sales Ltd., RAS Inc.	
T.M.S. Marketing Inc.: . . . . .	929388
T.M.S. Marketing Inc., Wingfield Management Inc.	
T.S.A. Triplex Amalgamated Inc.: . . . . .	929521
758682 Ontario Inc., Triplex Garments Co. Ltd.	
Twin Windows Inc.: . . . . .	928993
Twin Windows Inc., Twin Windows Toronto Limited	
Windrose Films Ltd.: . . . . .	929505
Windrose Films Ltd., Jung Centre of Analysis Inc.	
Wyndham Realty Corporation: . . . . .	929597
928895 Ontario Inc., Wyndham Realty Corporation	
917226 Ontario Inc.: . . . . .	917226
539565 Ontario Inc., 539904 Ontario Inc.	

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

## Corrected Certificates of Amalgamation Certificats de fusion corrigé

NOTICE IS HEREBY GIVEN that, a certificate of amalgamation under the *Business Corporations Act, 1982* has been endorsed: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription, en vertu de la *Loi de 1982 sur les compagnies*, d'un certificat de fusion délivré aux compagnies intéressées dont la liste est précédée de la date d'entrée en vigueur.

Name of Amalgamated Corporation: Amalgamating Corporations Dénomination sociale de la compagnie issue de la fusion : Compagnies qui fusionnent	Ontario Corporation Number Numéro de la compagnie en Ontario
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1990-3-1  
Teston Pipelines Limited: . . . . . 886093  
Teston Pipelines Limited, 874339 Ontario Inc.

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Corrected Certificate of Articles of Incorporation Certificat de status constitutifs corrigé

NOTICE IS HEREBY GIVEN that, a certificate of articles of incorporation under the *Business Corporations Act, 1982* has been endorsed: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription d'un certificat de status constitutifs délivré en vertu de la *Loi de 1982 sur les compagnies*. La date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numéro de la compagnie en Ontario
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1990-9-14  
HDM2N Inc. . . . . 911194

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Restated Certificates of Incorporation Mise à jour de certificats de constitution

NOTICE IS HEREBY GIVEN that, a restated certificate of incorporation under the *Business Corporations Act, 1982* has been endorsed. The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription d'un certificat de constitution en personne morale mis à jour en vertu de la *Loi de 1982 sur les compagnies*. La date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numéro de la compagnie en Ontario
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1991-1-29  
N. A. Timmins Limited . . . . . 543516

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Amendments to Articles Modification de statuts

NOTICE IS HEREBY GIVEN that, under the *Business Corporations Act*, 1982 amendments to articles have been effected as follows: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES que les statuts des compagnies énumérées ci-dessous ont été modifiés en vertu de la *Loi de 1982 sur les compagnies*, comme suit. La date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numéro de la compagnie en Ontario
1991-1-18	
Cook, Hawley, Marks Business and Financial Consultants Inc. (formerly Greenwood, Cook and Company Business and Financial Consultants Inc.)	800016
1991-1-23	
Salmon Connection Charters Inc. (formerly E.S. Painting Ltd.)	368967
1991-1-24	
Charlotte Products Ltd. (formerly Swish Products Ltd.)	564899
Future Investigations Inc. (formerly Kraster Consulting Inc.)	798854
K & E Waste Resource Inc. (formerly K & E Waste Resources Inc.)	825072
Thames Bandag and Tire Inc. (formerly Thames Tire & Auto Centre (London) Inc.)	911724
1991-1-25	
Arimathaea Resources Inc. (formerly Murgold Resources Inc.)	441731
The Avenue Group Inc. (formerly 926577 Ontario Limited)	926577
Canadian Wallpaper Holdings Inc. (formerly Froates Holdings Inc.)	551207
CSM Equipment & Finance Co. Ltd. (formerly C.S. Marcelline Holdings Ltd.)	791849
F.R.A. Consulting Ltd. (formerly First Rate Accounting & Consulting Ltd.)	867247
Grand Asian Holdings (Canada) Ltd. (formerly 904018 Ontario Limited)	904018
Help-U-Sell Tri-County Realty Inc. (formerly Tri-County Realty Inc.)	920361
ICR Associates Incorporated (formerly ICR Development Corporation)	807537
J. E. Doubt Associates Inc. (formerly J. E. Doubt & Associates Inc.)	738883
J.P.S. General Contractors Ltd. (formerly Adriatic Janitorial Services Ltd.)	795843
Koronex (Canadian-Ukrainian) Company Ltd. (formerly Koronex Enterprises Inc.)	864065
Max Gruenhut Canada Inc. (formerly Max Gruenhut International Inc.)	908408
McGregor Plymouth Chrysler Ltd. (formerly 876774 Ontario Ltd.)	876774
O'Donnell Realty Inc. (formerly Pat O'Donnell Realty Inc.)	574575
Presents With Pizzaz Inc. (formerly 668395 Ontario Limited)	668395
Quattrini Investments Ltd. (formerly Quattrini Investments Ltd.)	836919
Skinnors Sports Inc. (formerly 925764 Ontario Inc.)	925764
Sparling, Billings & Kei Inc. (formerly Sparling & Billings Inc.)	824455
Stevens Motors Inc. (formerly Stevens Mercury Sales Limited)	213675
Upstart Marketing and Sales Inc. (formerly B&R Satellite Systems Inc.)	608552
Xenex Enterprises Inc. (formerly 551359 Ontario Limited)	551359
Zigart Consulting Ltd. (formerly 733139 Ontario Limited)	733139

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numéro de la compagnie en Ontario
3NRI Realty Development (1990) Inc. (formerly 3NRI Realty Development Inc.)	921655
512961 Ontario Limited (formerly Waterloo Microsystems Inc.)	512961
668810 Ontario Limited (formerly Allen & William Dowding Enterprises Ltd.)	668810
802852 Ontario Limited (formerly Enterprise Centre Inc.)	802852
1991-1-28	
Alexander Proudfoot Productivity Management Company of Canada Limited (formerly Alexander Proudfoot Company of Canada Limited/La Compagnie Alexander Proudfoot Du Canada Limitee)	745308
Auslander & Mattison Marketing Inc. (formerly Auslander & Mattison Food Consultants Inc.)	765640
Business Communication Services Limited (formerly Business Communication Service Limited)	294456
CMD Properties Inc. (formerly 919594 Ontario Limited)	919594
Commercial Realty Corporation (formerly 835625 Ontario Inc.)	835625
The Contact Patch Corp. (formerly Ocula Concepts Corporation)	671878
Creative Bound Inc. (formerly Gai-Garet Design and Publication Ltd.)	709357
Erocon Corporation (formerly Erocon (1986) Limited)	654541
Gidgets University Activewear Incorporated (formerly Gidgets Incorporated)	895755
Jadoka Manufacturing Ltd. (formerly 912751 Ontario Ltd.)	912751
Maximum Realty Corp. (formerly Con/Cept 100 Maximum Real Estate Services Inc.)	769339
Ogden-Charters Electric Ltd. (formerly Ogden Door Control Systems Ltd.)	853388
One Button Limited (formerly Warren K. Cook (1990) Inc.)	834375
Oriental Land Development Inc. (formerly 875611 Ontario Limited)	875611
Sigma Table Gifts Ltd. (formerly Daniel Schmidt & Associates Ltd.)	631994
Teletronix International Inc. (formerly Actronique Inc.)	854451
Trespat Ltd. (formerly Trespat Petroleum Industries Ltd.)	480575
Zelray Corporation (formerly PSC Public Sector Corporation)	719576
306248 Ontario Inc. (formerly Mountain Lake Heating Designs Inc.)	306248
757034 Ontario Limited (formerly Pri-Keays Limited)	757034
781858 Ontario Inc. (formerly MRM Autobody Consultants Limited)	781858
1991-1-29	
Barnesdale Holdings Limited	577936
Bentim Management Corp. (formerly T. I. M. I. Management Corp.)	837038
Central Steel Fabricators Limited	117755
Dukane Canada Corp. (formerly Poetker Communications Limited)	855376
Economy Leasing Ltd.	523469
Economy Wheels Ltd.	446709
Health Therapy Products Inc. (formerly Bax Enterprises Inc.)	874202
Identification Services of Canada Inc. (formerly Ident-A-Kid Services of Canada Inc.)	869880
Main & Muldoon Insurance Brokers Limited	301678
Newlands Real Estate & Appraisals Ltd. (formerly Newlands Appraisal Limited)	569080
Ormond Veterinary Supply Limited	116383
Sloen International Inc. (formerly 834513 Ontario Limited)	834513
Software Solutions Factory Inc. (formerly The Vestronix Software Factory Inc.)	874424
Western Commodities Inc. (formerly Kelly, Douglas of Canada Ltd.)	920390
Yogen Fruz Corporation (formerly 802950 Ontario Ltd.)	802950

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numéro de la compagnie en Ontario
681087 Ontario Inc. ....	681087
803418 Ontario Limited (formerly Beautycorp Service Centres (No. 1) Inc.) ....	803418
922902 Ontario Limited (formerly Roycom Partners Limited) ....	922902
1991-1-30	
Analog Control Services Inc. ....	772432
Baxter Diagnostics Corporation Corporation De Diagnostic Baxter (formerly Baxter Diagnostics Corporation Corporation De Diagnostique Baxter) ....	899472
The Belleville Corporate Centre Limited (formerly 792078 Ontario Inc.) ....	792078
Bernhardt Insurance Service Limited ....	092521
Brian Greene Realty Limited ....	441790
Brooklawn Farms Inc. (formerly Spratek Enterprises Limited) ....	429247
Brown Bros. Service Stations of Windsor Limited ....	210427
Bud Peer Safety Supply Ltd. (formerly B. Peer Safety Supply Inc.) ....	907660
Can-Truck Equipment Limited (formerly 901726 Ontario Inc.) ....	901726
Canada Market Research Limited ....	874764
CFC-TEK Inc. ....	901603
Clayton Computers Inc. (formerly 912081 Ontario Ltd.) ....	912081
Dapco Leasing Limited (formerly 855021 Ontario Inc.) ....	855021
Delve Incorporated ....	548309
Dylexces Ltd. (formerly Country Hills Heights Ltd.) ....	913673
E.S.R. Limited ....	628549
Eclipse Claims Services Inc. ....	895879
Eduard Oberon Holdings Limited ....	812543
The Erinmaxx Corporation ....	928251
Flagship Resources Ltd. ....	783081
George and Helen Sinclair Investments Inc. ....	373026
GTL Trading Limited ....	833070
Heathwood Engineering Associates Limited ....	227861
Henge Developments (Hamilton) Inc. (formerly Nature's Market Inc.) ....	600126
Hiward Enterprises Limited ....	224163
I.T.A. Travel Agency Limited ....	268454
Ifam Holding Co. Limited (formerly Wessan Products Limited) ....	746055
Italia Custom Carpet & Rug Manufacturers Ltd. ....	836938
Janette Florists Inc. ....	263710
Jobran Investments Ltd. ....	649490
La Jolla Cove LP Inc. (formerly La Jolla Cove I LP Inc.) ....	922467
Magmar Exotic Cars Ltd. (formerly Magmar Sales & Leasing Ltd.) ....	697129
MHS Metal Products Inc. (formerly 717568 Ontario Inc.) ....	717568
Morch Enterprises Limited ....	116708
Mugford Investments Ltd. ....	533303
Murbell Holdings Ltd. (formerly 914148 Ontario Ltd.) ....	914148
Nuwaste Systems Inc. (formerly 608813 Ontario Limited) ....	608813
Ottawa Industrial Land Company Limited ....	652758
Richmond Design Group Inc. (formerly 924406 Ontario Limited) ....	924406
Right Edge Milling Ltd. ....	750177
SEJS Holdings Ltd. (formerly 748493 Ontario Limited) ....	748493
Sheppard-Keele Plaza Limited ....	431360
Stayjack Inc. ....	785401
Teracon Realty Corporation (formerly Carpentaria Developments Inc.) ....	815292
Twin Starr Production, Inc. ....	892785
VTR Video Inc. (formerly 925631 Ontario Limited) ....	925631
Wm. Groves Limited ....	082417
Yelrac Management Services Ltd. ....	389824
297395 Ontario Limited (formerly Foote Farm Equipment Ltd.) ....	297395
632548 Ontario Limited ....	632548
677443 Ontario Limited ....	677443
678676 Ontario Limited ....	678676
711170 Ontario Limited (formerly Nasco Industrial Products Limited) ....	711170

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numéro de la compagnie en Ontario
794658 Ontario Limited ....	794658
810805 Ontario Inc. ....	810805
816601 Ontario Limited ....	816601
832045 Ontario Inc. ....	832045
1991-1-31	
A. H. D. Crooks Limited ....	242969
Better Box Inc. ....	488654
Britannia-By-The-Bay Apartments II Limited (formerly 526620 Ontario Limited) ....	526620
Canadian Security and Investigation Services Limited (formerly Canadian Security and Investigation Systems Limited) ....	928398
D. & F. Di Carlo Construction Limited (formerly B. and F. Di Carlo Construction Limited) ....	650488
Envirovert Investments Inc. ....	915635
Erintec Management Corporation ....	701050
Halton Caird Life Insurance Agency Ltd. (formerly Halton Caird Life Insurance Brokers Ltd.) ....	914713
International Blends Inc. ....	351493
Jung Centre of Analysis Inc. ....	406312
Karrys Investments (1970) Limited ....	124804
Kenartha Oil and Gas Company Limited ....	218386
Key Pendragon Enterprises Inc. ....	529408
Lakefront Mfg. Inc. ....	787035
Living Realty Inc. ....	444304
Maple David Construction Inc. (formerly 892324 Ontario Inc.) ....	892324
Marcolin Canada Inc. (formerly 924405 Ontario Limited) ...	924405
Mardamat Incorporated ....	385428
Nouveau Americana Inc. ....	901586
Olympia Tile International Inc. ....	928975
Radical Sheep Shop Inc. (formerly 617769 Ontario Inc.) ....	617769
S-L Liquid Industrial Bases Limited ....	118811
Superior Pool, Spa & Leisure Ltd. ....	504784
The Thorpe Brothers Funeral Home Co. Limited ....	294535
Wise/Riddell Insurance Agency Inc. ....	915220
Zemta Development Corporation (formerly 925038 Ontario Inc.) ....	925038
387937 Ontario Limited ....	387937
679500 Ontario Limited ....	679500
787778 Ontario Limited (formerly P.M.I. Insurance Agencies Inc.) ....	787778

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

8/91

## Articles of Revival Clauses de Reconstitution

NOTICE IS HEREBY GIVEN that, certificates of revival under the *Business Corporations Act, 1982* have been endorsed reviving the following corporations: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription, en vertu de la *Loi de 1982 sur les compagnies*, du certificat de reconstitution délivré en faveur des compagnies dont la liste, précédée de la date d'entrée en vigueur, figure ci-dessous :

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numéro de la compagnie en Ontario
1990-12-21	
McDonagh and Plouffe Realty and Insurance Limited ....	203041
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DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

## Certificate of Amendment of Articles Issued Certificat de modification des statuts

NOTICE IS HEREBY GIVEN that, under the *Co-operative Corporations Act*, amendments to articles have been effected as follows:

AVIS EST PAR LES PRESENTES DONNE qu'en vertu de la *Loi sur les coopératives* les modifications suivantes ont été apportées aux statuts de la compagnie mentionnée ci-dessous :

Name of Corporation  
Nom de la compagnie

1983-8-24 Effective Date of Amendment 1991-1-31  
Wembley St. Clair Co-operative Inc.

C. N. H. WILSON,  
Director, Credit Unions and  
Co-operatives Services Branch  
Ministry of Financial  
Institutions  
Directeur, Direction des  
Caisses populaires et des  
coopératives  
Ministère des Institutions  
financières

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## Extra-Provincial Licences Endorsed Inscription de permis extraprovinciaux

NOTICE IS HEREBY GIVEN that, under Section 5 of the *Extra-Provincial Corporations Act, 1984*, Extra-Provincial Licences have been endorsed for: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LES PRÉSENTES de l'inscription des permis extraprovinciaux suivants faite conformément à l'article 5 de la *Loi de 1984 sur les compagnies extraprovinciales*. La date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation and Jurisdiction of Incorporation:	Ontario Corp. No.
Dénomination sociale et autorité législative compétente :	Numéro matricule de l'Ontario

1991-1-25 Elm Rental, Inc., Michigan	920381
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DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

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## Certificates of Dissolution Certificats de dissolution

NOTICE IS HEREBY GIVEN that a certificate of dissolution under the *Business Corporations Act, 1982* has been endorsed: The effective date precedes the corporation listings.

AVIS EST DONNÉ PAR LA PRÉSENTE que, conformément à la *Loi de 1982 sur les compagnies*, un certificat de dissolution a été inscrit pour les compagnies suivantes : la date d'entrée en vigueur précède la liste des compagnies visées.

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numero de la compagnie en Ontario
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1990-12-13 February Investments Limited	0082715
1990-12-19 Godfrey and Rosenberg Investments Limited	0109386
1990-12-31 Gaston J. Giroux Developments Inc.	0434238

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numero de la compagnie en Ontario
R. E. Fuller and Associates Limited	0226240
667808 Ontario Limited	0667808
1991-1-14	
G.R. Whattam Funeral Home (Picton) Limited	0534047
Orangeville Parking Company Limited	0222579
1991-1-16	
Brancor Welding and Piping Services Limited	0794996
Robert F. Petry Investments Limited	0214920
1991-1-17	
F. J. Haman Limited	0081764
George E. Saddy Limited	0146381
1991-1-18	
Bay Mac Real Estate Inc.	0804702
Northridge Resources Ltd.	0507648
1991-1-21	
Company Publications Inc.	0532842
Manitoulin Log Homes Ltd.	0442815
PBI Productions Inc.	0661035
692282 Ontario Inc.	0692282
719469 Ontario Inc.	0719469
1991-1-22	
Algoma Contractors Limited	0043384
Capital Planning Associates Inc.	0314041
Cardinal Studios Inc.	0620725
Ergocycle Inc.	0620935
Gentle Numbers Inc.	0371479
Hull Mine Mill Installation Co. Ltd.	0490097
T & D Fiber Tanks Ontario Limited	0584312
141824 Ontario Inc.	0141824
589043 Ontrio Limited	0589043
1991-1-23	
Bradford Plaza Limited	0093734
Chives Restaurant Inc.	0610987
Marjac Systems Ltd.	0675937
Queen Bros. Garage Limited	0053318
685358 Ontario Ltee	0685358
686648 Ontario Limited	0686648
1991-1-24	
Ken's Auto Body (Owen Sound) Limited	0369681
1991-1-28	
Delamere & Williams Company, Limited	0645964
J. A. Lacroix Limited	0130847
McKinnon Car Sales Limited	0155168
Picturesque Framing Limited	0244584
702650 Ontario Ltd.	0702650
854611 Ontario Inc.	0854611
1991-1-29	
C. Mackay Consulting Service Ltd.	0444769
Clara Brett Martin Child Care Centre	0878046
Kaskar Holdings Ltd.	0803123
1991-1-30	
K&D McGregor Enterprises Ltd.	0586441
1991-1-31	
Chemglobe Corporation	0727877
Joe Denoble Musicland Limited	0215730
North North East Inc.	0603390
1991-2-1	
Plethora Investments Limited	0133935
1991-2-4	
BG Preeco 2 Ltd.	0511645
Dimson & Smith Limited	0139963
LFL Incorporated	0275806
462408 Ontario Limited	0462408
878246 Ontario Limited	0878246
1991-2-5	
Mattice Lumber Company Limited	0079427
Patterson Auto Repair Limited	0498856
Walbridge Land Holdings Limited	0598992
687347 Ontario Limited	0687347
703712 Ontario Limited	0703712
1991-2-6	
Bourbon Coffee Co. Inc.	0404636

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numéro de la compagnie en Ontario
Hayashi of Canada, Inc. ....	0736915
Hayward Tyler of Canada Limited .....	0570149
Semple-Gooder Flooring limited .....	0250486
Waserco Holdings Inc. ....	0736734
1991-2-7	
Murray M. Zeidenberg Associates Inc. ....	0683243
Sarnia Broadcasters Limited .....	0133293
Tomorrow Investment Company Ltd .....	0504454

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

8/91

## Decisions on Applications for Audit Exemption Décisions en matière de requête d'exemption

NOTICE IS HEREBY GIVEN that the Director has received applications for exemption from certain requirements of Part XII of the *Business*

*Corporations Act, 1982* from the corporations named hereunder and has rendered her decision: Exemptions granted.

AVIS EST DONNÉ PAR LES PRÉSENTES que sur réception des requêtes formées par les compagnies mentionnées ci-dessous en vue d'obtenir l'exonération de l'application de certaines dispositions prescrites à la Partie XII de la *Loi de 1982 sur les compagnies*, la directrice s'est prononcée favorablement. Par conséquent, la dispense est accordée.

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numéro de la compagnie en Ontario
1991-1-21	
Fundy Gypsum Company Limited .....	701831
1991-1-24	
Synerlogic Inc. ....	836382
1991-1-25	
Little Narrows Gypsum Company Limited .....	701835
Nebs Business Forms Limited	
Formules D' Affaires Nebs Limitee .....	289067
1991-1-28	
Elizabeth Arden (Canada) Inc. ....	870745
Lever Industrial Inc. ....	842433
Unipath Inc. ....	395067

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

8/91

## Notice of Default in Complying with the Corporations Tax Act Avis d'inobservation de la loi sur les corporations

The Director has been notified by the Minister of Revenue that the following corporations are in default in complying with the *Corporations Tax Act*.

NOTICE IS HEREBY GIVEN under subsection 240 (1) of the *Business Corporations Act, 1982* that unless the corporations listed hereunder comply with the requirements of the *Corporations Tax Act* within 90 days of this notice, orders will be made dissolving the defaulting corporations. All enquiries concerning this notice are to be directed to Corporations Tax Branch, Ministry of Revenue, 33 King Street West, Oshawa, Ontario, L1H 8H6.

Le ministre du Revenu a informé l'administrateur unique que les compagnies suivantes n'avaient pas respecté la Loi sur l'imposition des personnes morales.

AVIS EST DONNÉ PAR LA PRÉSENTE que, conformément au paragraphe 240 (1) de la *Loi de 1982 sur les compagnies*, si les compagnies citées ci-dessous ne se conforment pas aux prescriptions énoncées par la Loi sur l'imposition des personnes morales dans un délai de 90 jours suivant la réception du présent avis, lesdites compagnies se verront dissoutes par décision. Pour tout renseignement relatif au présent avis, veuillez vous adresser à la Direction de l'imposition des compagnies, ministère du Revenu, 33, rue King ouest, Oshawa (Ontario) L1H 8H6.

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numéro de la compagnie en Ontario
A. K. Aluminium Inc. ....	672506
A. Roberts Mechanical Ltd. ....	694332
A.E. Summers Appliance Service Ltd. ....	314357
A.M.B. Estimators Limited .....	476066
A-Frame Carpentry Ltd. ....	699056
Aborong Design Group Inc. ....	610672
Ad-Lee Inc. ....	467959
Adhocracy Incorporated .....	655373
Afonso Electrical Services Inc. ....	702663
Aim Investments Limited .....	436257
Alanna V (Anjou) Ltd. ....	653176
Alanna V (Hillcrest) Ltd. ....	653167
Alanna V (Kingston) Ltd. ....	653177
Alanna V (Kitchener) Ltd. ....	653171
Alanna V (Warden Woods) Ltd. ....	653173
Alanna V Beauty Centre (Downtown) Ltd. ....	651999
Alfad Multi-Services Limited .....	478075
Alfie & Joey Seafoods Ltd. ....	542081
Almar Valley Homes Inc. ....	471881
Ambassadeur Importation Inc. ....	459025

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numéro de la compagnie en Ontario
Amberal Parts Inc. ....	537516
Amerilease/Canada Ltd. ....	695763
Anna Vogel Design Limited .....	438623
AQAP Labs Inc. ....	698260
Ashland Investments Inc. ....	613026
Assistco Ltd. ....	401560
Avnew Investments Limited .....	652431
B. J. Verdon Enterprises Ltd. ....	649347
B.D. & D. Power Incorporated ....	467908
B&B Sand & Gravel Inc. ....	595779
Barbara Audrey Interiors And Gifts Inc. ....	705782
Beaverland Syrup Limited .....	509001
Benev Developments Limited .....	230581
Berarducci Brothers Manufacturing Company (Canada) Limited .....	138214
Brammex Corporation .....	370178
Brouxhon Securities Limited .....	482173
C. F. D. Consultants Inc. ....	678264
C. L. K. Enterprises Inc. ....	459405
Calmon Developments Ltd. ....	656060
Calmon Holdings Ltd. ....	656061

Name of Corporation Dénomination sociale de la compagnie	Ontario Corporation Number Numéro de la compagnie en Ontario
Canada Seafood International Corporation .....	650579
Caninex Ltd. ....	515912
Canterbury Corporation .....	536716
Cargreen Developments Inc. ....	576755
Carle-Wilson Associates Ltd. ....	577157
Carolina Cheese Limited .....	406727
Carriev International Inc. ....	699858
Casaloma Pizza Ltd. ....	702737
Central Lease Systems Ltd. ....	614270
Centro De Nutricac Natural Co. Ltd. ....	568223
Century Furniture (Cornwall) Limited .....	271543
Cesian Management Limited .....	481808
Chevere Pour Femme Inc. ....	548432
Choice Cleaners & Tailors Inc. ....	617649
CMNS Management Company Inc. ....	656616
Cudex Financial Corporation .....	744876
Customized Transportation, Ltd. ....	723154
Cyphercom Inc. ....	652822
D. & B. Fraser Hardware Ltd. ....	625526

Name of Corporation	Ontario Corporation Number Numéro
Denomination sociale de la compagnie	de la compagnie en Ontario
D. Girard Construction Ltd. ....	670560
D. Smellie And Sons, Limited. ....	031197
D.C. Richards & Associates Consultants Ltd. ....	534440
D.D.S. Ltd. ....	705378
D'Argent Development Corp. Ltd. .	642950
Darryl's Place Designers Of Hair Ltd. ....	712235
David A. Spackman Enterprises Limited. ....	079354
Dev-Dal Holdings Ltd. ....	697558
Domestic Frog Investment Inc. ....	655242
Diceter Corp. ....	546460
Diesel Commander Systems Ltd. .	652827
Dimona Investments Limited. ....	217712
Diversified Lease Search Corporation. ....	613216
Domestic Finders Inc. ....	699932
Down Under Tanning Centre Inc. .	714467
Duncan Marine Canada Limited. .	644350
Durham Shoes Inc. ....	616538
E. H. Gosbee & Son Ltd. ....	329336
East Wind Trading Company Inc. .	697834
Ego Design Build Inc. ....	698292
Elderglen Construction Ltd. ....	440255
Emerald Time Corporation. ....	659716
Essex Farmers, Limited. ....	015461
Eureka Precision Computer Services Inc. ....	652491
Euron Investments Ltd. ....	575514
Even-Jon Holdings Inc. ....	497373
Evergreen International Corp. ....	619006
Exile Editions Limited. ....	405648
Fabiani's House Of Fine Clothing Ltd. ....	656957
Farr Electronics Inc. ....	440767
Fayhan Holdings Limited. ....	474514
Finch Coiffures Limited. ....	652382
Finder Holdings Limited. ....	702917
First Choice Bakeries Inc. ....	523943
First Equitable Corp. ....	704234
Flavour French Fries Inc. ....	702120
Francene Management Company Limited. ....	407077
Frances & Mark Udlis Inc. ....	276883
Franco Pools Ltd. ....	313069
Frank & Henry's Service Ltd. ....	378069
Freelind Investments (Canada) Inc. .	408287
Frontland Realty Corporation. ....	720184
Futtrup Investments Limited. ....	580109
G. Duncan Black Limited. ....	117902
G.C.I. Communications Ltd. ....	470573
G.M. Wright & Associates Ltd. ....	702484
G&R Chemicals Inc. ....	531701
Gabtech Resources Inc. ....	654972
Galerie Evan Inc. ....	701573
Gary Ward Enterprises Limited. ....	703959
Gascony Investments Limited. ....	334974
Gentian Inc. ....	542766
George Bardwell Holdings Limited. .	276851
George Robert Investments Ltd. .	504085
Glen Cross Developments Ltd. ....	345905
Globe-Mart Enterprises Inc. ....	700026
Golden Media Presentations Limited. .	229601
Goldstone Fashions Ltd. ....	726825
Goulbourne Holdings Ltd. ....	651369
Grant's Garage Ltd. ....	497057
Greenoch Developments Inc. ....	504366
Gregmur Thermal Inc. ....	438523

Name of Corporation	Ontario Corporation Number Numéro
Denomination sociale de la compagnie	de la compagnie en Ontario
Gregory Salzmann Insurance Agencies Limited. ....	252857
Greig Trailer Repairs Limited. ....	364764
Greshold Investments Limited. ....	553021
Grimaldi & Montanari Limited. ....	698087
Hammerhead Investments & Management Limited. ....	354946
Hammy's Restaurants Ltd. ....	737274
Happy Endings Ltd. ....	580554
Harpur's Clothing Company Limited. ....	613093
Health Ventures International Inc. .	703561
Henry, Upton, Chown Inc. ....	745031
Heritage Card Company Ltd. ....	578105
High Park Removals & Chimney Liners Ltd. ....	704014
High Rise Janitorial Services Ltd. .	642659
Hoddesdon Holdings Ltd. ....	430585
Homart Sales Co. Limited. ....	118119
Huh Investments Ltd. ....	722002
Impeto Holdings Limited. ....	704150
Intercept America, Corp. ....	506968
International Fund Services Ltd. .	587577
Intertek Research Corporation. ....	576679
Investments 1804 Inc. ....	501326
J.G. Jackson Mechanical Contractors Ltd. ....	296308
Jade Mechanical Limited. ....	704366
Jarn Services Limited. ....	318982
Jenry Holdings Inc. ....	700791
Jeromo Sales Limited. ....	258005
John-Daniels Construction Ltd. ....	709271
Joint Trawlers Inc. ....	595633
Jojomi Investments Inc. ....	381260
Josette Holdings Inc. ....	438527
K & Son Maintenance Co. Inc. ....	617668
K.T.F. Management Ltd. ....	376312
Kajan Basic MacHinery Inc. ....	575782
Karamane Holdings Ltd. ....	471074
Katesar Contracting Inc. ....	697593
Keep-Kool Industries Inc. ....	702928
Keyofilm Consultants Inc. ....	614300
L B L Publications Inc. ....	439218
La Boutique A Pauline Meuble Et Decoration Inc. ....	702478
Ladybudd Investments Ltd. ....	344992
Lafe Development Corporation. ....	698182
Lamps Plus Inc. ....	556808
Larry J. Allison Construction Ltd. .	625025
Laval Tri Dont Management Inc. .	583684
Lee & Thomas Inc. ....	470323
Lim-Pet Technologies Inc. ....	613124
Lintar Investments Limited. ....	504362
LMC Equity Inc. ....	695481
Lockhart Management Ltd. ....	442602
Lombardi Style Drywall Ltd. ....	479267
Lorak Inc. ....	655279
Lou's Catering Limited. ....	618065
Loveline Limited. ....	259268
M.D. Air Systems Ltd. ....	578572
MacDonald Sand & Gravel Ltd. ....	653945
MacEdo Brothers Supermarket Limited. ....	351361
Majva Incorporated. ....	700707
Maknipp Imports Ltd. ....	707169
Manuel De Sousa Holdings Inc. ....	717177
Mardi's Kitchen Stuff Inc. ....	476702
Mareval Acceptance Company Limited. ....	146972

Name of Corporation	Ontario Corporation Number Numéro
Denomination sociale de la compagnie	de la compagnie en Ontario
Mark IV Window Cleaning Ltd. ...	399656
Mark Tanenbaum Holdings Limited. ....	502363
Markant Corporation Ltd. ....	313349
Marquee Communications Incorporated. ....	529576
Marquis Video Corporation. ....	485314
Marruvium Importing Ltd. ....	613260
Martin Architectural Woodwork Ltd. ....	408106
Mat-Phil Bros. Ltd. ....	697081
Max VI Holdings Ltd. ....	418969
McKintel Computer Corporation. .	576185
Meagher's Men's Wear Limited. .	156004
Medallion Hair Stylists Limited. .	146668
Metro Billiards Inc. ....	354659
Michael King Development Corporation. ....	478370
Michael Rogan Properties Inc. ....	448432
Mid-Way Driver Services Incorporated. ....	540777
Mid-West Home Improvements Ltd. .	649846
Midon Glass & Aluminum Limited. .	667050
Millenium Entertainment Corporation. ....	696335
Minturn Management Limited. ....	382660
MJP Enterprises Ltd. ....	577878
MOH Limousine Service Ltd. ....	611328
Monoris Planning Inc. ....	576083
Motivation Fine Cars Inc. ....	579258
Muffy's Pet Food Centre Inc. ....	649853
Nations International Inc. ....	655906
Neal Small Designs Ltd. ....	332248
New Fly Forming Construction Limited. ....	261059
Newkirk Construction Limited. ....	315086
Nickell Designs Ltd. ....	508465
North American Fire Log Limited. .	373574
NRG Control Products Ltd. ....	619337
Oak Valley Homes Inc. ....	504371
Oakcom Systems Inc. ....	611778
Oakville Automotive Industrial Supplies Limited. ....	078249
P. W. Ross & Associates Ltd. ....	642307
P.O. Dynasty Jewels Ltd. ....	702962
Pacers Consulting Group (1983) Ltd. ....	443133
Palmstone Industries Inc. ....	702916
Parnica Investments Limited. ....	703589
Pat McNulty Co. Limited. ....	299103
Paulander Drive Limited. ....	718442
Penner Sweets Limited. ....	671018
People's Super Discount Food Value Inc. ....	698121
Perimeter Developments Ltd. ....	244560
Perry Industries Limited. ....	503501
Perry's Old Time Portraits Inc. ....	380279
Perseus Investments Limited. ....	567235
Petrie - Karges Inc. ....	650250
Pilot Soyfoods Ltd. ....	563169
Pinevalley Automotive Services Limited. ....	266906
Polcan Transport Limited. ....	702250
Pollywog Studios Inc. ....	477785
Polyco Polyethylene Products Inc. .	657073
Power Supply Sound Company Limited. ....	293634
Presdex Jewellery Limited. ....	308353
Price Landscape Services Ltd. ....	656462

Name of Corporation	Ontario Corporation Number Numéro
Denomination sociale de la compagnie en Ontario	
Prime View Development Corporation	694113
Professional Seating Industries Inc.	475613
Prosperity Tax Services Inc.	702165
Queensville Proved Sire Service Limited	446207
Quintree Inc.	548060
R.D. Ekins Holdings Inc.	698615
R&J Jewellers Limited	425966
Random Access Inc.	488879
Ray-Ross Investments Inc.	612021
Real Computers (Solution MacHines) Limited	697971
Reno Construction Ltd.	702340
Richlor Investments Ltd.	699883
Robert F. Kowal Investments Limited	215482
Robert M. Seidler Productions Ltd.	702749
Romor Services Limited	349878
Rossland Cleaners Inc.	700913
Rycourt Financial Enterprises Inc.	530706
S. Nawaz Management Ltd.	674608
S.P. Cho Associates Inc.	706826
Sandy's Cash & Carry Flowershop Inc.	405720
Sarjay Management Limited	329200
Saturn Corporation Of Canada Limited	598700
Saulmac Management Limited	505023
Scaffco Equipment Sales & Services Ltd.	704906
Sea Grape Investments Inc.	437975
Sentinel Foam (Canada) Inc.	608431
Seocan Trading Inc.	655294
Shamrock Motors Inc.	728584
Siberian Furs Inc.	570605
Solnik & Rybak Ltd.	331869
South & West Realty Inc.	577223
Southdown Glass & Mirror Ltd.	653841
Specialty Steel Products Inc.	533367
Sporrich Realities Limited	121123
Spring Of 49 Inc.	698773
St. Laurent Tri Dont Management Inc.	583685
Steel City Process Instruments Inc.	614318
Stoneage Installations Inc.	696527
Swanford Properties Ltd.	486043
T.A.W. Construction Inc.	676270
Tartan House Software Inc.	732614
Taurvin Industries Ltd.	703528
Telio Investments Ltd.	656062
Terian Enterprises Inc.	703076
Terra Nova Financial Services Inc.	701473
The Batting Cage Co. Inc.	614530
The Cherry Tree Limited	253746
The Guards Equestrian Centre Ltd.	436405
The New York Pretzel Factory Ltd.	617780
The Powerhouse Racquet Club Ltd.	690694
The Roberts Group Inc.	650657
The Totera Group Inc.	679855
Think-Tank In Retail Apparel Development Of Etac, Inc.	652066
Thumbers Inc.	699259
Thunder Computers Inc.	701577
Toronto Fastener Supply Company Limited	577132
Tri Dont Scarborough Management Inc.	542319
Tri-Cuspid Management Corp.	340840

Name of Corporation	Ontario Corporation Number Numéro
Denomination sociale de la compagnie en Ontario	
Tri-Tech Dialysis Inc.	614923
Trizad Incorporated	699197
Trusha Transport Ltd.	697298
Turnay Electric (Mississauga) Ltd.	619231
Tyvis Enterprises Inc.	564679
Ultrashine Canadian Klean Car Inc.	719167
Upton Moving Limited	702860
V.B. Finishing Ltd.	697890
Veintrops Limited	436646
Venture Packaging Inc.	532620
Verna Cook Limited	201276
Victoria Hungarian Restaurant Limited	381085
Volks Shoes Inc.	733020
Voyageur Tire & Automotive Service Ltd.	578228
Wallaceburg Pro Hardware & Rent-All Ltd.	471151
Warwick Insurance Agencies Inc.	653037
Water Toys Incorporated	696493
Watpen Management Services Ltd.	503608
Wavell Street Holdings Limited	343910
We III Designs Inc.	701588
Wear-TEX Limited	131115
White Technics Inc.	714983
Whitney Designs Limited	685085
Whitwool Investments Inc.	501072
Wilkeel Holdings Ltd.	579860
Willpower Diet Corporation	705672
Wilson Refrigeration Ltd.	504237
Windrift Farms Ltd.	704665
Wintergreen Graphics & Design Limited	603504
Wise Exchange Holdings Ltd.	373902
Witex International Trading Inc.	699831
Woodview Park Pharmacy Limited	105188
World Host Inc.	615072
World-Trade Tools Incorporated	746808
Yaska Enterprises Limited	372579
Zaardak Development Inc.	652683
21st Century Satellite Television Systems Ltd.	676565
265621 Ontario Limited	265621
283030 Ontario Limited	283030
303531 Ontario Limited	303531
310464 Ontario Limited	310464
318796 Ontario Inc.	318796
376226 Ontario Limited	376226
388008 Ontario Limited	388008
405195 Ontario Ltd.	405195
405407 Ontario Limited	405407
432106 Ontario Limited	432106
439867 Ontario Inc.	439867
440685 Ontario Limited	440685
454187 Ontario Limited	454187
466387 Ontario Inc.	466387
467141 Ontario Ltd.	467141
469498 Ontario Limited	469498
470568 Ontario Limited	470568
470599 Ontario Limited	470599
471173 Ontario Limited	471173
472699 Ontario Ltd.	472699
473401 Ontario Limited	473401
474628 Ontario Ltd.	474628
502680 Ontario Inc.	502680
504859 Ontario Limited	504859
504921 Ontario Limited	504921
505424 Ontario Inc.	505424
512820 Ontario Ltd.	512820

Name of Corporation	Ontario Corporation Number Numéro
Denomination sociale de la compagnie en Ontario	
528014 Ontario Ltd.	528014
535926 Ontario Limited	535926
538029 Ontario Limited	538029
538679 Ontario Inc.	538679
539355 Ontario Ltd.	539355
539767 Ontario Ltd.	539767
541471 Ontario Limited	541471
560 Danforth Investments Ltd.	614833
561555 Ontario Limited	561555
564076 Ontario Inc.	564076
564663 Ontario Limited	564663
566622 Ontario Limited	566622
572735 Ontario Limited	572735
574379 Ontario Inc.	574379
574826 Ontario Inc.	574826
578384 Ontario Limited	578384
578388 Ontario Ltd.	578388
579969 Ontario Limited	579969
581240 Ontario Limited	581240
581293 Ontario Limited	581293
590293 Ontario Limited	590293
598654 Ontario Inc.	598654
598711 Ontario Inc.	598711
602813 Ontario Inc.	602813
605974 Ontario Limited	605974
606480 Ontario Limited	606480
609860 Ontario Inc.	609860
610582 Ontario Inc.	610582
611448 Ontario Ltd.	611448
611655 Ontario Ltd.	611655
612069 Ontario Limited	612069
613277 Ontario Limited	613277
614271 Ontario Ltd.	614271
615654 Ontario Ltd.	615654
615991 Ontario Limited	615991
617879 Ontario Limited	617879
622339 Ontario Limited	622339
623805 Ontario Inc.	623805
632399 Ontario Limited	632399
634881 Ontario Limited	634881
639381 Ontario Inc.	639381
640484 Ontario Inc.	640484
647009 Ontario Inc.	647009
649800 Ontario Limited	649800
650372 Ontario Inc.	650372
650761 Ontario Limited	650761
651476 Ontario Inc.	651476
651858 Ontario Inc.	651858
652259 Ontario Inc.	652259
652334 Ontario Limited	652334
652534 Ontario Ltd.	652534
652598 Ontario Inc.	652598
652927 Ontario Limited	652927
653459 Ontario Inc.	653459
654469 Ontario Inc.	654469
654532 Ontario Ltd.	654532
655670 Ontario Inc.	655670
656533 Ontario Limited	656533
658001 Ontario Inc.	658001
658317 Ontario Ltd.	658317
659323 Ontario Limited	659323
664533 Ontario Limited	664533
666202 Ontario Inc.	666202
679758 Ontario Inc.	679758
681105 Ontario Inc.	681105
683050 Ontario Limited	683050
686885 Ontario Ltd.	686885
686950 Ontario Inc.	686950
686983 Ontario Inc.	686983

Name of Corporation	Ontario Corporation Number Numéro	Name of Corporation	Ontario Corporation Number Numéro	Name of Corporation	Ontario Corporation Number Numéro
Denomination sociale de la compagnie	de la compagnie en Ontario	Denomination sociale de la compagnie	de la compagnie en Ontario	Denomination sociale de la compagnie	de la compagnie en Ontario
689293 Ontario Limited	689293	699376 Ontario Inc.	699376	701767 Ontario Inc.	701767
690799 Ontario Limited	690799	699494 Ontario Limited	699494	702317 Ontario Limited	702317
692138 Ontario Limited	692138	699508 Ontario Limited	699508	702446 Ontario Inc.	702446
694103 Ontario Limited	694103	699581 Ontario Ltd.	699581	702673 Ontario Ltd.	702673
694393 Ontario Limited	694393	699835 Ontario Inc.	699835	702809 Ontario Limited	702809
695749 Ontario Inc.	695749	699851 Ontario Ltd.	699851	703020 Ontario Limited	703020
696022 Ontario Limited	696022	700097 Ontario Inc.	700097	703447 Ontario Ltd.	703447
696366 Ontario Limited	696366	700110 Ontario Limited	700110	703573 Ontario Limited	703573
696582 Ontario Limited	696582	700112 Ontario Limited	700112	704061 Ontario Inc.	704061
697059 Ontario Limited	697059	700376 Ontario Limited	700376	704176 Ontario Limited	704176
697326 Ontario Limited	697326	700708 Ontario Limited	700708	704374 Ontario Limited	704374
697361 Ontario Limited	697361	700755 Ontario Limited	700755	704769 Ontario Inc.	704769
697523 Ontario Inc.	697523	700845 Ontario Inc.	700845	704865 Ontario Ltd.	704865
697556 Ontario Limited	697556	701153 Ontario Inc.	701153	705767 Ontario Limited	705767
697682 Ontario Inc.	697682	701408 Ontario Limited	701408	706179 Ontario Limited	706179
697829 Ontario Limited	697829	701410 Ontario Limited	701410	709568 Ontario Inc.	709568
697833 Ontario Limited	697833	701411 Ontario Limited	701411	709783 Ontario Ltd.	709783
698004 Ontario Limited	698004	701414 Ontario Limited	701414	719204 Ontario Ltd.	719204
698186 Ontario Limited	698186	701418 Ontario Limited	701418	726491 Ontario Inc.	726491
698222 Ontario Ltd.	698222	701421 Ontario Limited	701421	729387 Ontario Limited	729387
698440 Ontario Limited	698440	701423 Ontario Limited	701423	750810 Ontario Inc.	750810
698691 Ontario Inc.	698691	701430 Ontario Limited	701430	89 Highview East Inc.	715248
699136 Ontario Limited	699136	701433 Ontario Limited	701433		

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

8/91

## Errata

Vide Ontario Gazette, Vol. 123-47, dated November 24th, 1990.

NOTICE IS HEREBY GIVEN that the notice issued under section 240 (3) of the *Business Corporations Act* set out in the issue of the ONTARIO GAZETTE of November 24, 1990 with respect to the cancellation of the Certificate of Incorporation of 673198 Ontario Limited was issued in error and is null and void.

Cf. Gazette de l'Ontario, Vol. 123-47 datée du le 24 novembre 1990.

PAR LA PRÉSENTE, nous vous informons que l'avis émis en vertu de l'article 240 (3) de la *Loi sur les compagnies* et énoncé dans la GAZETTE DE L'ONTARIO du le 24 novembre 1990 relativement à l'annulation du certificat de constitution en personne morale de 673198 Ontario Limited a été délivré par erreur et qu'il est nul et sans effet.

Vide Ontario Gazette, Vol. 124-04, dated January 26th, 1991.

NOTICE IS HEREBY GIVEN that the notice issued under section 240 (3) of the *Business Corporations Act* set out in the issue of the ONTARIO GAZETTE of January 26, 1991 with respect to the cancellation of the Certificate of Incorporation of A.F.G.T. Holdings Inc. was issued in error and is null and void.

Cf. Gazette de l'Ontario, Vol. 124-04 datée du le 26 janvier 1991.

PAR LA PRÉSENTE, nous vous informons que l'avis émis en vertu de l'article 240 (3) de la *Loi sur les compagnies* et énoncé dans la GAZETTE DE L'ONTARIO du le 26 janvier 1991 relativement à l'annulation du certificat de constitution en personne morale de A.F.G.T. Holdings Inc. a été délivré par erreur et qu'il est nul et sans effet.

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

8/91

## Cancellation of Certificates of Incorporation (Corporations Tax Act Defaulters) Annulation de certificats de constitution en personne morale (Non-respect de la Loi sur l'imposition des personnes morales)

NOTICE IS HEREBY GIVEN that, under subsection 240 (3) of the *Business Corporations Act*, 1982, the Certificates of Incorporation of the corporations named hereunder have been cancelled by an Order dated 28 January, 1991 for default in complying with the provisions of the *Corporations Tax Act*, and the said corporations have been dissolved on that date.

AVIS EST DONNÉ PAR LA PRÉSENTE que, conformément au paragraphe 240 (3) de la *Loi de 1982 sur les compagnies*, les certificats de constitution en personne morale des compagnies dont les noms apparaissent ci-dessous ont été annulés par décision datée du 28 janvier 1991 pour non-respect des dispositions de la Loi sur l'imposition des personnes morales et que la dissolution des compagnies concernées prend effet à la date susmentionnée.

Name of Corporation	Ontario Corporation Number Numéro	Name of Corporation	Ontario Corporation Number Numéro	Name of Corporation	Ontario Corporation Number Numéro
Denomination sociale de la compagnie	de la compagnie en Ontario	Denomination sociale de la compagnie	de la compagnie en Ontario	Denomination sociale de la compagnie	de la compagnie en Ontario
A.G.F. MacHine & Tool Co. Limited .....	349085	Creative Media Enterprises Limited	266154	Horizon Home Services Inc. ....	627675
Aeromedia Incorporated .....	483531	Creative Radio Inc. ....	648375	Hornbeam Enterprises Ltd. ....	691565
Agawa Custom Milling Inc. ....	687404	CTI Canadian Tachograph Inc. ....	559544	Humber Color Laboratories Limited .....	567281
Alabaster Construction & Management Limited .....	419601	Curtis Properties High Park Medical Centre Inc. ....	660219	Hunter Transportation Co. Limited .....	047655
Algoma Metal Refining Inc. ....	483170	D. Miklas & Associates Limited ...	243969	Hurontario Investors Corporation Limited .....	126666
Allan Cumming Holdings Ltd. ....	422857	Dahom Investments Limited .....	103158	Huzzah Investments Limited .....	430668
Alsan Construction Inc. ....	680198	Dando-Martina Designs Inc. ....	690896	IKA Lumber Sales Inc. ....	643820
Alternative Systems Inc. ....	679767	David C. Heaslip Enterprises Ltd. .	348750	Interact Chemical Company Ltd. .	685772
American Mirror And Glass Limited .....	431467	David Freeman Holdings Inc. ....	412953	Interior Tactics Inc. ....	667970
Ancaster Nutritional Services Inc. ....	637569	Davirlyn Investments Limited .....	547342	International Beauty Products Inc. .	687892
Applex Depot Limited .....	629753	Descor Industries Inc. ....	691872	Irwin Hoffman Enterprises Ltd. ....	643568
Arcan Leasing Corporation .....	691394	Diamond Concerts International Inc. ....	689472	J. G. Hicks And Company, Limited	056158
Armac Sports Limited .....	133750	Diaper Delight Inc. ....	649634	J.B.W.H. Trucking Inc. ....	685931
Armaugh Investments Ltd. ....	687903	Didjeridoo Limited .....	362923	Jacques Holender Films Inc. ....	691270
Arnold Lanni Music Limited .....	691877	DMS Insulating Systems Ltd. ....	690974	James Metzger Roofing Contractors Inc. ....	610460
Astro Electric Motors Limited .....	247348	Doly's Co. Ltd. ....	685307	Jan-Tem Holdings & Investments Ltd. ....	597572
Atlas Global Traders Corporation .....	374139	Domcrest Investments Limited .....	688159	Jason Atkins & Associates Limited .	499844
Austral Management Limited .....	229170	Don McLean Investments Ltd. ....	692326	Jay's Metal Products Ltd. ....	387569
B J I Enterprises Inc. ....	688241	Doubleton Investments Ltd. ....	305328	Jaymark Developments Inc. ....	676967
Backstack Enterprises Corporation .....	313889	E.M.T. Contracting Inc. ....	587918	Jesscor Investments Limited .....	489176
Bairmbriar Holdings Inc. ....	398991	E.S. Tolentino & Associates Inc. .	689444	JL Giordano Enterprises Inc. ....	685794
Baldwin Natural Foods Ltd. ....	456693	E.Y. Investments Ltd. ....	685250	Jofra Auto Electrical & Mechanical Services Inc. ....	685180
Barkwood Management Limited ...	384134	Eastwalsh Homes Ltd. ....	668145	John Kucera & Associates Inc. ....	689661
Beau Chene Investments Limited ..	360326	Ed Con Warehousing & Distributing Centre Inc. ....	690247	John Smit's Commercial Flooring Ltd. ....	608810
Beep Beep Productions Ltd. ....	497155	Eleanor Rose Interiors Ltd. ....	726445	Jonathan K Footwear Inc. ....	690104
Bernbar Investments Inc. ....	691887	Electronic Delivery Systems Canada Ltd. ....	640398	Jordon Ventures Corporation .....	691275
Betray Investments Limited .....	643062	Eliza's Hoff Sales Ltd. ....	686056	Keith Coutlee Consulting Inc. ....	647288
Blina International Inc. ....	686683	Ell-Mark Auto Service Ltd. ....	446151	Kerry Developments Limited .....	519699
Block H Developments Limited ...	465986	Erintree Building Systems Inc. ....	689570	Kesri Sarees & Fashions Ltd. ....	705384
Blue Coach Foods Limited .....	426554	Execucentre Investments Inc. ....	433188	Kirwood Advertising Inc. ....	641658
Bri-Shar Marketing Ltd. ....	690375	Exotic Automobiles Of Ottawa Inc. .	685330	Kitchenette Broom Inc. ....	598954
Britannia Public House Limited ...	066590	F. M. Cooper Real Estate Limited ..	407251	L & M Plastering Co. Ltd. ....	267174
Brunswick Lake Lodge Limited ..	612352	Ferpat Holdings Ltd. ....	288135	Label World Limited .....	645056
C. A. McDowell Leasing Limited ...	146097	Financial Foundations Of Canada Incorporated .....	679727	Labor Capital Corporation .....	315421
C.I.B.B. (Toronto) Inc. ....	688486	First Place Development Corporation .....	691213	Lambton-Kent Tire Service (Dresden) Limited .....	297354
Caber Productions Inc. ....	690222	First Western Research Centres Inc. ....	596392	Lee's General Contracting Co. Ltd. .	628649
Calabisella Foods Ltd. ....	428241	Food Meister Equipment & Systems Ltd. ....	687388	Legal-Ease Paralegal Services Limited .....	684961
Can-Chung Ventures Inc. ....	642667	Fox Farms (Harrow) Inc. ....	447845	Lenroc Properties Ltd. ....	371273
Canadian School Of Motor Racing Ltd. ....	546345	G. Batherson Holdings Ltd. ....	351369	Lets Be Hasty Productions Inc. ....	690283
Canary Carriers Inc. ....	690139	Gemini Sound & Light Design Inc. .	691966	Limor Transportation Limited .....	691273
Carson Store Supplies Inc. ....	585984	Gifted Students International (Mining) Inc. ....	553758	Lions Disposal Limited .....	691537
Cedarbrae Realty Inc. ....	602457	Gifts Unlimited Inc. ....	501594	Litex Enterprises Ltd. ....	494588
CEFN Caled Investments Limited ..	690318	Gilles Lingerie International Inc. ...	691314	Lizinski Enterprises Limited .....	230554
Chagall Food Enterprises Inc. ....	691862	Golden Pine Investments Limited ...	254581	Lucanku Corp. ....	679663
Charles Slater Limited .....	134703	Gourmet Smoke House Inc. ....	684984	M & M Auto & Truck Collision Corp. ....	688162
Charlton Management Inc. ....	640546	Great Culinary Adventures Inc. ....	684758	M K Fabrication Limited .....	706859
China Book Resources (Canada) Inc. ....	641778	Great Northern Design Inc. ....	589874	M.L. Cameo-Litho Inc. ....	684652
Chlamys Ltd. ....	731047	Gunalway Investments Ltd. ....	426769	Marbury Marketing Incorporated ..	688195
Chromolit Inc. ....	612731	Hair By Michel Inc. ....	625083	Markstay Holdings Limited .....	459676
Ciera Paving Ltd. ....	648342	Halk Investments Limited .....	221779	Mas Mori Enterprises Ltd. ....	400732
CJ Wedding Group Inc. ....	690552	Hanna Sales & Service Limited ...	065032	Max Security & Investigations Inc. .	536265
Class Fashion Jewellery Inc. ....	523744	Hardman Communications Inc. ....	616184	McAuley Dental Laboratory Inc. ...	345224
Classic Television Productions Inc. ....	691379	Harvest Agricultural Export Corp. .	675340	Metcalfe International Inc. ....	691350
Compucall Ltd. ....	564087	Hasi International Inc. ....	686170	MGC Software Systems Inc. ....	690379
Consign Air & Sea Inc. ....	670543	Helico Helicopters Limited .....	409689	Micron Electrical Contractors Inc. .	642749
Consumerad Advertising Limited ...	497996	Heshben Investments Ltd. ....	439333	Milborne & Associates Inc. ....	425197
Copperleaf Landscaping Ltd. ....	602349	Hieu Super Janitorial Services Limited .....	691247	Modern Aluminum Inc. ....	685383
Covewood Manor Developments Inc. ....	690422	Homestar Communications Inc. ....	692228	Moka Designs Inc. ....	605475

Ontario Corporation		Ontario Corporation		Ontario Corporation	
Name of Corporation	Number Numéro	Name of Corporation	Number Numéro	Name of Corporation	Number Numéro
Denomination sociale de la compagnie	de la compagnie en Ontario	Denomination sociale de la compagnie	de la compagnie en Ontario	Denomination sociale de la compagnie	de la compagnie en Ontario
Moonlite Silver (Canada) Inc. ....	687092	Strategic Health Care Systems Ltd. .	688603	602253 Ontario Incorporated .....	602253
Morrish Research & Design Of Canada Ltd. ....	642982	Sunflower (Canada) Inc. ....	579844	602842 Ontario Inc. ....	602842
Mr Dry Cleaner Corporation Ltd. ...	602648	Talho Modelo Augusta Ltd. ....	690130	611564 Ontario Inc. ....	611564
Mr. Basin Street Restaurants Inc. ..	691527	Tass Hoteliers Inc. ....	688614	617682 Ontario Limited .....	617682
MSC Marketing Services Canada Limited .....	346888	Ted Baker Farms Inc. ....	605950	629557 Ontario Limited .....	629557
MTK Mintilex International Inc. ...	691398	Telephone Security Corporation ...	448316	632288 Ontario Inc. ....	632288
Narikin Inc. ....	689500	The Arch Corporation .....	521649	635173 Ontario Limited .....	635173
Near 'N Far Sales Inc. ....	314998	The Black Anvil Mfg. Corp. ....	573872	635593 Ontario Limited .....	635593
Neucon Mechanical Ltd. ....	666540	The Denis O'Malley Corporation ..	641188	640358 Ontario Inc. ....	640358
New Port Art. Flowers Fty. Ltd. ...	569363	The Hart Consulting Group Inc. ...	688397	642545 Ontario Ltd. ....	642545
New-Tech Chemicals Inc. ....	582373	The Three Sisters Food Service Ltd. ....	556863	642877 Ontario Limited .....	642877
Newaba Investments Limited .....	496373	The Wicker Tree Ltd. ....	687245	642895 Ontario Limited .....	642895
Newvent Enterprises Ltd. ....	400886	The World Wrestling Hall Of Fame Incorporated .....	691381	643867 Ontario Ltd. ....	643867
North Toronto Grill Inc. ....	688450	Thomas/Milborne Corporation Ltd.	421095	646293 Ontario Limited .....	646293
Northern Law Communications Of Canada Inc. ....	692273	Toronto And You, Tour And Event Planners Inc. ....	605147	648871 Ontario Inc. ....	648871
Nutcom Foods Inc. ....	690845	Town Hair Cutters Limited .....	567354	656844 Ontario Limited .....	656844
Oaklin Court Apartments Limited ..	313930	Transcity Office Products Limited .	659713	660767 Ontario Inc. ....	660767
Octotrade Inc. ....	686372	Tridont Management Inc. ....	601078	663770 Ontario Limited .....	663770
Omegatronics Communications II Ltd. ....	671482	Trojan Woodworking Inc. ....	585195	670591 Ontario Limited .....	670591
Ontario Monitoring Services Ltd. ..	689728	UNA Investment Corp. ....	689959	676473 Ontario Limited .....	676473
Ontario Motor Sport Inc. ....	568053	Valley Fibres Limited .....	294917	676498 Ontario Limited .....	676498
Osgoode Meat Packers Ltd. ....	690569	Van-Del Contracting Ltd. ....	296379	679755 Ontario Limited .....	679755
Otonabee Office Outfitters Inc. ....	516069	Vaughan West Corporate Centre Inc. ....	701446	683447 Ontario Inc. ....	683447
Ottawa Records Limited .....	685298	Vibrent Marketing Inc. ....	688699	683562 Ontario Inc. ....	683562
Our Base Systems Inc. ....	689638	Warwick Hotel (Toronto) Limited .	057957	683569 Ontario Limited .....	683569
P.E.R. Chance Investments Limited	463024	Waste Energy Recovery Systems Limited .....	679747	683582 Ontario Inc. ....	683582
Peace For Profit Inc. ....	691349	Weeden Printing Ltd. ....	639283	684646 Ontario Limited .....	684646
Pemcho Developments Ltd. ....	691393	Wood-Side Farms Manitoulin Limited .....	495795	684746 Ontario Inc. ....	684746
Peter & Maria Catering Limited ...	602581	Yellow Heather Developments Limited .....	682097	684976 Ontario Inc. ....	684976
Pineville Homes Ltd. ....	685368	Your Dentist (Dental Services) Inc. ....	609458	685243 Ontario Inc. ....	685243
PK Group Inc. ....	689633	Zoar Trading Company Limited ...	449706	685306 Ontario Inc. ....	685306
Proform Publishing Ltd. ....	688832	Zorrox Inc. ....	527710	685329 Ontario Inc. ....	685329
Progress Heating & Air-Conditioning Ltd. ....	690057	346070 Ontario Limited .....	346070	685337 Ontario Inc. ....	685337
Pup-Pets Inc. ....	684867	388262 Ontario Limited .....	388262	685498 Ontario Limited .....	685498
Purity Spring Water Company Inc. .	688776	389343 Ontario Limited .....	389343	685684 Ontario Limited .....	685684
R L Massie Enterprises Limited ...	427093	399049 Ontario Limited .....	399049	685754 Ontario Inc. ....	685754
Ramil Management Inc. ....	429678	429779 Ontario Inc. ....	429779	685797 Ontario Ltd. ....	685797
Ravalli Automotive Inc. ....	690558	453268 Ontario Inc. ....	453268	686054 Ontario Limited .....	686054
Real Estate People International Inc. ....	369582	459262 Ontario Inc. ....	459262	686175 Ontario Limited .....	686175
Renmar Sales Agency Inc. ....	296892	46 Chamberlain Street Developments Ltd. ....	685351	686671 Ontario Inc. ....	686671
Residence In Fort Erie, Corporation .....	691286	477402 Ontario Limited .....	477402	686745 Ontario Inc. ....	686745
Rocksearch Canada Inc. ....	691344	493678 Ontario Inc. ....	493678	687294 Ontario Inc. ....	687294
Rosie's Creatures Inc. ....	692283	494678 Ontario Inc. ....	494678	687402 Ontario Limited .....	687402
Rotex Limited .....	090451	494951 Ontario Limited .....	494951	687403 Ontario Limited .....	687403
Rovan Aggregates Limited .....	298653	496843 Ontario Limited .....	496843	687436 Ontario Inc. ....	687436
Roy Upholstery & Misc. Antiques Ltd. ....	704080	497693 Ontario Inc. ....	497693	687459 Ontario Limited .....	687459
Rycal Contracting Inc. ....	689669	516589 Ontario Ltd. ....	516589	687690 Ontario Inc. ....	687690
S. Ratkovsky & Sons Lumber Ltd. .	251160	518875 Ontario Limited .....	518875	687798 Ontario Limited .....	687798
S&A Pizzas Inc. ....	691562	526946 Ontario Inc. ....	526946	687801 Ontario Limited .....	687801
Sandko Management (Hamilton) Limited .....	683568	54 Chamberlain Street Developments Ltd. ....	685353	687821 Ontario Limited .....	687821
Schattens Canada Limited .....	297198	548256 Ontario Inc. ....	548256	687823 Ontario Inc. ....	687823
See-Me Lights Corp. ....	689808	555943 Ontario Limited .....	555943	687824 Ontario Limited .....	687824
Serving You Inc. ....	690368	564550 Ontario Limited .....	564550	687877 Ontario Limited .....	687877
Solbro Properties Inc. ....	684642	568249 Ontario Inc. ....	568249	687878 Ontario Limited .....	687878
South Garden Chinese Food Ltd. ..	688283	568679 Ontario Inc. ....	568679	687891 Ontario Inc. ....	687891
Southward Holidays Inc. ....	628957	568770 Ontario Ltd. ....	568770	688046 Ontario Ltd. ....	688046
Specialty Tooling International Inc. ....	688090	569297 Ontario Ltd. ....	569297	688060 Ontario Ltd. ....	688060
Stereo Warehouse Limited .....	267297	601880 Ontario Limited .....	601880	688564 Ontario Inc. ....	688564
Stetco Limited .....	295946	601925 Ontario Limited .....	601925	688602 Ontario Ltd. ....	688602
				688756 Ontario Limited .....	688756
				688771 Ontario Inc. ....	688771
				688772 Ontario Inc. ....	688772
				688792 Ontario Limited .....	688792
				688801 Ontario Inc. ....	688801
				689216 Ontario Inc. ....	689216
				689404 Ontario Limited .....	689404
				689424 Ontario Inc. ....	689424
				689429 Ontario Limited .....	689429
				689484 Ontario Ltd. ....	689484

Name of Corporation	Ontario Corporation Number Numéro	Name of Corporation	Ontario Corporation Number Numéro	Name of Corporation	Ontario Corporation Number Numéro
Denomination sociale de la compagnie	de la compagnie en Ontario	Denomination sociale de la compagnie	de la compagnie en Ontario	Denomination sociale de la compagnie	de la compagnie en Ontario
689626 Ontario Limited	689626	690305 Ontario Inc.	690305	691529 Ontario Ltd.	691529
689674 Ontario Limited	689674	690317 Ontario Inc.	690317	691538 Ontario Limited	691538
689774 Ontario Inc.	689774	690396 Ontario Inc.	690396	691813 Ontario Inc.	691813
689775 Ontario Inc.	689775	690425 Ontario Limited	690425	691871 Ontario Limited	691871
689969 Ontario Inc.	689969	690512 Ontario Limited	690512	691906 Ontario Inc.	691906
690011 Ontario Inc.	690011	690556 Ontario Ltd.	690556	691935 Ontario Limited	691935
690043 Ontario Ltd.	690043	690846 Ontario Limited	690846	691949 Ontario Inc.	691949
690077 Ontario Limited	690077	690872 Ontario Inc.	C0872	692216 Ontario Limited	692216
690122 Ontario Inc.	690122	690905 Ontario Limited	690905	692305 Ontario Limited	692305
690144 Ontario Limited	690144	690935 Ontario Inc.	690935	692334 Ontario Limited	692334
690162 Ontario Limited	690162	690978 Ontario Ltd.	690978	706243 Ontario Inc.	706243
690186 Ontario Inc.	690186	691221 Ontario Limited	691221	723181 Ontario Limited	723181
690187 Ontario Limited	690187	691242 Ontario Limited	691242	760 Lawrence Avenue West Limited	692240
690202 Ontario Inc.	690202	691282 Ontario Inc.	691282	871 College Street Toronto Investments Limited	688599
690210 Ontario Limited	690210	691325 Ontario Limited	691325		
690238 Ontario Inc.	690238	691443 Ontario Limited	691443		

DIANE S. NAGEL,  
Director, Companies Branch  
Directrice, Direction des compagnies

8/91

## Change of Name Act Loi sur le changement de nom

NOTICE IS HEREBY GIVEN that the following changes of name were granted during the week ending February 1st, 1991. The listing below shows the previous name followed by the new name.

AVIS EST PAR LA PRÉSENTE DONNÉ que les changements de noms suivants ont été accordés au cours de la semaine se terminant le 1 février 1991. La liste ci-dessous indique les anciens noms suivis par les nouveaux noms.

Aguiar, Lucia, Maria — Amaral, Lucia, Maria  
Al Baki, Marwan — Baki, Marwan  
Al Baki, Mazen — Baki, Mazen  
Al Baki, Mohamed, Abdallah — Baki, Mohamed, Abdallah  
Al Baki, Sarah — Baki, Sarah  
Alcaraz, Susana — San Jose, Susana  
Allard, Kristy, Nadine, Caroline — Chalovich, Kristy, Nadine, Saffron  
Allen, Margarina, Victoria — Sewell, Margarina, Victoria  
Allgood, Louise, Edna — Delaat, Louise, Edna  
Alversado, Olivia — Alversado-Zdzitowiecki, Olivia  
Ampong, Charles, Osei — Bonsu, Charles, Osei  
Andrade, Alexander, Javad — Quenneville, Alexander, Javad  
Andreou, Maroulla — Andreou-Pouris, Maroulla  
Andrews, Lorraine, Serephine — Bynoe, Lorraine, Serephine  
Archambault, Malinda, Rose — Fisher, Malinda, Rose  
Arjmand, Nadira — Habibelahian, Nadira  
Arnaudoff, Lynda, Kuna — Whelan, Lynda, Kuna  
Arnold, Sandra, May — Harvie, Sandra, May  
Atkinson, Donna, Lee — Lillian, Donna, Lee  
Au, Emmy, Yee, Man — Yeung, Emmy, Yee, Man  
Aubertin, Kyla, Jacqueline — Pacaud, Kyla, Jacqueline  
Austin, Cindy, Lou — Mc Cormick, Cindy, Lou  
Babcock, Gloria, May — Giese, Gloria, May  
Bachewich, Douglas, Harry — Bache, Douglas, Harry  
Bachewich, Kenneth, Douglas — Bache, Kenneth, Douglas  
Bachewich, Mary, Rita — Bache, Mary, Rita  
Baichulall, Jeanette, Nadira — Da Silva Jardine, Jeanette, Nadira  
Bailey, Deborah, Ann — Pedersen, Deborah, Ann  
Bak, Eva, Martha — Bak Hebert, Eva, Martha  
Balint, Judy, Ann — Milner, Judy, Ann  
Balroop, Cynthia — Gourlie, Cynthia  
Bannerman, Dennese, Ann — Miller, Dennese, Ann  
Barna, Ilona — Balint, Ilona  
Barr, Jeffrey, Brian — Anderson, Jeffrey  
Barr, Karen, Margaret — Barr-Taylor, Karen, Margaret  
Bartsch, Elaina, Ann — Sunderland, Elaina, Ann

Bassi, Anjali — Bassi-Persaud, Anjali  
Bates, Patricia, Ruth — Brooks, Patricia, Ruth  
Baxter, Sandra, Marie — Watters, Sandra, Marie  
Beauchamp, Mary, Ann, Cecilia — Lies, Mary, Ann, Cecilia  
Bechard, Kathy, Lyn — Forget, Kathy, Lyn  
Beckett, Juanita, Lynn — Mc Coy, Juanita, Lynn  
Beckwith, Angela, Marie — Beckwith-Berman, Angela, Marie  
Beggs, Tina, Lynn — Wesley, Tina, Lynn  
Belanger, Marie, Lucile, Sylvie — Belanger-Woolsey, Marie, Lucile, Sylvie  
Bell, Shannon, Elizabeth — Baillon, Shannon, Elizabeth  
Belshaw, Sarah, Jane — Baverstock, Sarah, Jane  
Bender, Kelly, Lynn — Freeman, Kelly, Lynn  
Benham, Lisa, Jane — Boorman, Lisa, Jane  
Bernard, Marie, Murielle — Holubeshen, Marie, Murielle  
Besner, Colleen, Joan — Jorna, Colleen, Joan  
Bews, Roxanne, Barbara — Beck, Roxanne, Barbara  
Bhairo, Saleenie — Seegobin, Saleenie  
Bhoolai, Jemma, Elizabeth — George, Jemma, Elizabeth  
Biegajlo, Joanna — Betlej, Joanna  
Biehn, Jennifer, Lynne — Eldridge, Jennifer, Lynne  
Billingsley, Holly, Edith, Mae — Anderson, Holly, Edith, Mae  
Bilusic, Jarda — Radloff, Jarda  
Bingham, Clare, Mariea — Herbert, Clare, Mariea  
Birkle, Eldriede, Josephine — Greenslade, Elfriede, Josephine  
Bitman, Fathia — Christian, Fathia  
Black, Carolyn, Jane — Marshall, Carolyn, Jane  
Bodoni, Sylvia, Maria — Vanderkuip, Sylvia, Maria  
Bogunovic, Jerry — Wojtowicz, Jerry, Jeffery  
Boldt, Brenda, Louise — Hart, Brenda, Louise  
Bolton, Louis, Frank — Bolton, Robert, Frank  
Bombay, Deborah, Joy — Pedde, Deborah, Joy  
Bonnet, Sandra, Josephine — Downey, Sandra, Josephine  
Boucher, Jodie, Marie — Skoularicos, Jodie, Marie  
Bourgeois, Marie, Yvette — O'Brien, Marie, Yvette  
Boyd, Joanne, Theresa — Benedetto, Joanne, Theresa  
Bradbury, Elaine, Joellen — Horton, Elaine, Joellen  
Brennan, Patricia, Marie — Elford, Patricia, Marie  
Brewer, Stephanie, Claire — Foley, Stephanie, Claire  
Britto, Anthea, Iria — Murrell, Anthea, Iria  
Brown, Jo-Anne, Nancy — LeClair, Jo-Anne, Nancy  
Bruulsema, Annette, Joanne — Hart, Annette, Joanne  
Brueya, Teresa, Ellen — Wylie, Teresa, Ellen  
Buchanan, Christine, Alison — Buchanan-Smagacz, Christine, Alison  
Bunda, Dawn, Marie, Josephine — Busser, Dawn, Marie, Josephine  
Burdon, Jennifer, Lynn — Burdon Copley, Jennifer, Lynn  
Burke, Kelly, Anne — Martell, Kelly, Anne

- Butcher, Carol, Ann — Lee, Carol, Ann  
 Cameron, Beth, Ann — Clarke, Beth, Ann  
 Cameron, Gail, Marie — Doran, Gail, Marie  
 Campos Recalde, Liliana, Pamela — Hilario, Liliana, Pamela  
 Carello, Chiara — Mitrevski, Chiara  
 Carpio Chavez, Amalia, E. — Navas, Amalia, E.  
 Carpio Chavez, Azucena, Del, Carmen — Navas Carpio, Azucena, Del, Carmen  
 Carter, Brenda, M. — McArthur, Brenda, M.  
 Carthy, Susan, Elizabeth — Martin, Susan, Elizabeth  
 Casey, Allison, Marie — Manners, Allison, Marie  
 Cassis, Rosalie, Anne — Harris, Rosalie, Anne  
 Castator, Patricia, Ann — Seagrove, Patricia, Ann  
 Caughill, Cheryl, Anne — Elliott, Cheryl, Anne  
 Cavanaugh, Tracey, Lynne — Klatt, Tracey, Lynne  
 Cedeno Pliego, Maricela — Mc Lean, Maricela  
 Cesario, Anna, Maria — Burton, Anna, Maria  
 Chan, Ivy, Yuen-Man — Ko, Ivy, Yuen-Man  
 Chappell, Karen, Jane — Magdangal, Karen, Jane  
 Charlebois, Rachelle, Lynn — Unger, Rachelle, Lynn  
 Chase, Veronica, Unita — Sobers, Veronica, Unita  
 Cheng, Yin-Wah, Emily — Hugh, Yin-Wah, Emily  
 Cheung, Kwong, Yang — Tan, Kwong, Yang  
 Chew, Christine, Elsie — Greco, Christine, Elsie  
 Chin, Grace — Gor, Grace  
 Chin, Jacqueline, Marie — Chin-James, Jacqueline, Marie  
 Chubey, Kimberley, Ann — Martinsen, Kimberley, Ann  
 Chwartkowski, Patricia, Ann — Deguisse, Patricia, Ann  
 Claire-Bernier, Marie, Rose-Aimee — Peirson, Marie, Rose-Aimee  
 Clark, Kathleen, Edna — Mitchell, Kathleen, Edna  
 Clarke, Alison, Leigh — Clarke Robinson, Alison, Leigh  
 Clarke, Paulette, Hyacinth — Davis, Paulette, Hyacinth  
 Clayfield, Rhonda, Mae — Bauer, Rhonda, Mae  
 Cohen, Florence, Mary — Walls, Mary, Margaret  
 Cohn, Benny — Cohen, Ben  
 Collins, Sharon, Jean — Jackson, Sharon, Jean  
 Contardo, Giuseppina — Bertani, Giuseppina  
 Conti, Mary, Joanne — O'Sullivan, Mary, Joanne  
 Cook, Ruth, Annabell — Stones, Ruth, Annabell  
 Cooperbloom, Herbert, Saul — Cooper, Herbert, Saul  
 Corcoran, Diana, Marie — Taylor, Diana, Marie  
 Corduff, Kristine, Eva — Stanke, Kristine, Eva  
 Coughlin, Anne, Marie — Simard, Anne, Marie  
 Covre, Rose, Antonia, Maria — Bourre, Rose, Antonia, Maria  
 Craker, Virginia, Mary — Bartosek, Virginia, Mary  
 Cross, Jennifer, Louise — Mifflin, Jennifer, Louise  
 Crowther, Barbara, Jane — Lyon, Barbara, Jane  
 Cruickshank, Elizabeth, Arlene — Frise, Elizabeth, Arlene  
 Cruise, Rebecca, Louise — Fritz, Rebecca, Louise  
 Cunningham, Susan — Barleben, Susan  
 D'Souza, Marilyn, Saviona — Ryan, Marilyn, Saviona  
 Dagostino, Rosanna — Dosreis, Rosanna  
 Dass, Mary-Anne — Dass-Chadee, Mary, Anne  
 David, Rachel, Dafna — Tonken, Rachel, Dafna  
 Davis, Laverne, Anella — Illebare, Laverne, Anella  
 Daw, Nancy, Lynn — Barton, Nancy, Lynn  
 De Haan, Wiegertje — Millette, Wiegertje  
 De Sousa, Helena, Margarida, Cabral — De Sousa Albernaz, Helena, Margarida, Cabral  
 De Sousa, Paulino, Lucia, De Fatima — Gramigna, Lucia, De Fatima  
 De Weerd, Janke, Geertje — Wielenga, Janke, Geertje  
 Dean, Amanda, Jane — Dean-Huggett, Amanda, Jane  
 Demone, Michelle, Florence — Kilpatrick, Michelle, Florence  
 Dempster, Joanne, Barbara, Marie — Powell, Joanne, Barbara, Marie  
 Denault, Irene, Simone, Lucy — Lajeunesse, Irene, Simone, Lucy  
 Dennis, Debbie, Ann — Dennis Woodman, Debbie, Ann  
 Dequanne, Marie, Christine — Asselin, Marie, Christine  
 Deschene, Karen, Opal — Walker, Karen, Opal  
 Desjardins, Marie, Rose-Linda — Tasse, Marie, Rose-Linda  
 Dewar, Alison, May — Martin, Alison, May  
 Diaz, Maria, Fe — Dixon, Maria, Fe  
 Diaz, Myriam, Juana — Kalkanis, Myriam, Juana  
 Dickieson, Micheal, Johnnoth — Birchall, Micheal, Johnnoth  
 Dietrich, Lori, Ann — Sheidow, Lori, Ann  
 Dillon, Diane, Martha — Ellis, Diane, Martha  
 Dixon, Stacey, Anne — Hollings, Stacey, Anne  
 Dodds, Leslie, Ann — Ryan, Leslie, Ann  
 Doiron, Ginette, Marie — Mickie, Ginette, Marie  
 Dolinar, Katherine, Ana — Munn, Katherine, Ana  
 Donnelly, Kimberley, Diane — Grier, Kimberley, Diane  
 Dore, Dianne, Alberta — Gottschalk, Dianne, Alberta  
 Duarte, Alice, Maria — Couto, Alice, Maria  
 Dunn, Patricia, Ann — Pollock, Patricia, Ann  
 Durling, Janet, Grayce — Beauchemin, Janet, Grayce  
 Eichenberger, Stacey, Lee — Horodezny, Stacey, Lee  
 Elmhirst, Katherine, Ann — Ivin, Katherine, Ann  
 Epp, Deanne, Ruth — Peter, Deanne, Ruth  
 Ervin, Steven, Andrew — Langevin, Steven, Andrew  
 Fairman, Freda, Catherine — Fairman, Freda, Kathryn  
 Fanning, Juanita, Lynn — Fanning, Juanita, Lynn  
 Farinas, Rose, Marie — Domaoang, Rose, Marie  
 Fayolle, Brian, James, Paul — Cormack, Brian  
 Feere, Cheryl, Jane — Binks, Cheryl, Jane  
 Feldman, Solomon — Feldman, Sydney  
 Ferier, Lucia, Vanda — President, Lucia, Vanda  
 Ferrey, Janet, Louise — Sharpe, Janet, Louise  
 Field, Nichola, Karen — Vammus, Nichola, Karen  
 Fitzpatrick, Juliet, Eleanor — De Lench, Juliet, Marie  
 Fitzpatrick, Richard, Stephen — De Lench, Richard, Stephen  
 Fitzpatrick, Sonia, Lynn — Mitchell, Sonia, Lynn  
 Flack, Wendy, Dianne — Saito, Wendy, Dianne  
 Flanagan, Kerry, Marie — Farrell, Kerry, Marie  
 Fournier, Linda, Anne, Marie — Mealing, Linda, Anne, Marie  
 Fournier, Wendy, Arlette — Mac Donald, Wendy, Arlette  
 Fowler, Frederick, Gordon, Jr. — Campbell, Frederick, Gordon, Fowler  
 Frangeskaki, Hilary, Joy — Watts, Hilary, Joy  
 Fraser, Heather, Susan — Watson, Heather, Susan  
 Frew, Campbell, Ballantyne — Frew, Brian, Campbell, Ballantyne  
 Friel, Debra, Karen — Fleming, Debra, Karen  
 Fromm, Marianne, Gretel — Winter, Marianne, Gretel  
 Gaasbeek, Andrea, Jane — Stockall, Andrea, Jane  
 Gabriel, Susan, Vanessa — Bolton, Susan, Vanessa  
 Garcia, Celestine — Cape, Celestine  
 Gardner, Lori, May — Toles, Lori, May  
 Gareau, Marie, Madeleine, Irene — Gareau-Lavigne, Marie, Madeleine, Irene  
 Gaska, Elzbieta — Rynkun, Elzbieta  
 Gaton, Ma, Violeta — Gaton-Lopez, Ma, Violeta  
 Gaudet, Karen, Lynn — Mc Murter, Karen, Lynn  
 Gentles, Sharon, Gail — Potts, Sharon, Gail  
 Gill, Harmandeep, Kaur — Deol, Harmandeep, Kaur  
 Gilroy, Pamela, Maria — Harris, Pamela, Maria  
 Gionet, Darlene, May — Sauve, Darlene, May  
 Girma, Bethlehem — Minassie, Bethlehem  
 Gladish, Linda, Ruth — Minnis, Linda, Ruth  
 Gladman, Patricia, Jill — Bunce, Patricia, Jill  
 Gladstone, Mary, Clare — Patrick, Mary, Clare  
 Glenn, Beverley, Alycia — Olesen, Beverley, Alycia  
 Godfrey, Coral, Faye — Seguin, Coral, Faye  
 Gooderham, Wendy, Elizabeth — Renzella, Wendy, Elizabeth  
 Goodfellow, Glenda, Cheryl — Young, Glenda, Cheryl  
 Graham, Lawrie, Jean — Graham-Davis, Lawrie, Jean  
 Graham-Rowe, Venice, Marie — Rose, Venice, Marie  
 Grant, Heather, Anne — Brown, Heather, Anne  
 Grant, Kevin, David — Grant, Kevin, Andrew  
 Gray, Karen, Elizabeth — Le Maitre, Karen, Elizabeth  
 Greator, Karen, Elizabeth — Lewis, Karen, Elizabeth, Smith  
 Greatrix, Christine, Ann — Green, Christine, Ann  
 Greene, Donna, Marlene — Warder, Donna, Marlene  
 Greene, Emma, Louise — Wickett, Emma, Louise  
 Greene, Victoria, Lyn — Wickett, Victoria, Lyn  
 Griffin, Mary, Veronica — Santoriello, Mary, Veronica  
 Griffith, Holly, Elizabeth — Thompson, Holly, Elizabeth  
 Grunsky, Nina, Jennifer, Sophie — Grunsky, Carina, Jennifer, Nina, Sophie  
 Guttormson, Elizabeth, Ann — Falzon, Elizabeth, Ann  
 Guzman, Monica, Carmen — Garzon, Monica, Carmen  
 Gyamfi, Agnes, Adu — Sarpong, Agnes, Adu  
 Ha, Du, Hoa — Ha, John, Hoa  
 Ha, Minh, Hoa — Ha, Michael, Hoa  
 Haase, Deborah — Hossack, Deborah  
 Haber-Quinlan, Susan, Mary — Sheppard, Susan, Mary

- Habgood, Jacqueline, Leigh — Mc Guire, Jacqueline, Leigh  
 Haight, Bridget, Jennifer — Perrin, Bridget, Jennifer  
 Hale, Joy, Carol — Bruce, Joy, Carol  
 Hammerschlag, Derek, Morris — Hamill, Derek, Morris  
 Hammerschlag, Jennifer, Susan — Hamill, Jennifer, Susan  
 Hammerschlag, Louise, Dorothy — Hamill, Louise, Dorothy  
 Hammerschlag, Nicholas, Karl — Hamill, Nicholas, Karl  
 Hammerschlag, Robert, Douglas — Hamill, Robert, Douglas  
 Handford, Pamela, Ruth — Salin, Pamela, Ruth  
 Haniff, Faazya, Rasheeba — Khan, Faazya, Rasheeba  
 Hanna, Margaret — Hanna-Dick, Margaret  
 Harbinson, Ruth, Ellen — Bolton, Ruth, Ellen  
 Hardial, Tillawattie — Madray, Tillawattie  
 Harnett, Elizabeth, Jane — Surtees, Elizabeth, Jane  
 Harris, Averil, Coleen — Marfo-Agyiri, Averil, Coleen  
 Harris, Helene, A. — Fairhall, Helene, A.  
 Harris, Lealana, Elizabeth — Garner, Lealana, Elizabeth  
 Harris, Sheena, Lorraine — Chin, Sheena, Lorraine  
 Harrison, Sandra, Lorraine — Walters, Sandra, Lorraine  
 Harrod, Meredith, Lynne, Matthews — Norman, Meredith, Lynne, Matthews  
 Harvie, Brenda, Margaret — Blanchard, Brenda, Margaret  
 Healey, Maria, Soraya — Healey-Gerritsen, Maria, Soraya  
 Hein, Evelyn, Herta, Pauline — Hein-Karl, Evelyn, Herta, Pauline  
 Hemens, Marie, Chantal — Hemens-Davis, Marie, Chantal  
 Henderson, Sandra, Louise — Hannah, Sandra, Louise  
 Henry, Terri-Lynn — Bordignon, Terri-Lynn  
 Hepburn, Julie, Frances — Laird, Julie, Frances  
 Hetherington, Angela, Christine — Blewett, Angela, Christine  
 Higgins, Dorothy, Victoria — Metzloff, Dorothy, Victoria  
 Hill, Donna, May — Guthrie, Donna, May  
 Hinds, Avalon, Gwendolyn, Phillipia — Williams, Avalon, Gwendolyn, Phillipia  
 Hirtle, Paula, Frances — Kwan, Paula, Frances  
 Hodgson, Barbara, Elizabeth — Midgley, Barbara, Elizabeth  
 Hoey, Mary-Ellen — Vrencken, Mary-Ellen  
 Hoggarth, Janet, Ruth — Mitton, Janet, Ruth  
 Holmes, Joan, Melynn — Holmes-Asamoah, Joan, Melynn  
 Horney, Christy, Ann — Lapins, Christy, Ann  
 Horsburgh, Elaine, Marie — Rowles, Elaine, Marie  
 Hosking, Anna-Marie, Louise — Wall, Anna-Marie, Louise  
 Hoyt, Susan, Ann — Bailey, Susan, Ann  
 Hrynkiw, Tammy, Lynn — Edmiston, Tammy, Lynn  
 Hunt, Elizabeth, Anne — Mac Master, Elizabeth, Anne  
 Hunt, Michael, Roy — Barclay, Michael, Roy  
 Hunt, Michele, Darice — Shugg, Michele, Darice  
 Hussain, Moyra, Sultana — Rizvi, Moyra, Sultana  
 Huynh, Ha, Thu Thi — Watts, Ha, Thu Thi  
 Huynh, Tran, Que — Wong, Tran, Que  
 Hyde, Sandra, Ann — Hyde Martine, Sandra, Ann  
 Ingham, Leila, Orovokki — Rosenstrom, Leila, Orovokki  
 Ireland, Deborah, Sharon — Bredin, Deborah, Sharon  
 Irwin, Cristina, Marie — Palmer, Cristina, Marie  
 Irwin, Veronica, Lynne — Primeau, Veronica, Lynne  
 Jarosz, Malgorzata, Sylwia — Orlinski, Malgorzata, Sylwia  
 Jaskolski, Apolonja — Roberts, Apolonja  
 Jefferson, Margaret, Eileen, Cianfaglione — Jefferson-McMurdy, Margaret, Eileen, Cianfaglione  
 Joiner, Patti, Ann — Cooper, Patti, Ann  
 Jolicoeur, Line, Andre — Lepage, Line, Andre  
 Juman, Haneifa — Juman-Watkins, Haneifa  
 Kabeera, Vashtee — Kabeera-Knight, Vashtee  
 Kaczor, Joanna — Gargala, Joanna  
 Kaczorowska, Jolanta, Mieczyslawa — Kaczorowska-Polubiec, Jolanta, Mieczyslawa  
 Kalicharran, Babsin, Nureda — Connelly, Babsin, Nureda  
 Kalsi, Diljeet, Kaur — Rihal, Diljeet, Kaur  
 Kalsi, Palvinder, Kaur — Sondh, Palvinder, Kaur  
 Kalyan, Annalita, Shireen — Bell, Annalita, Shireen  
 Kamin, Sherry, Ann — Mahle, Sherry, Ann  
 Kaminska, Aleksandra, Joanna — Zurawski, Aleksandra, Joanna  
 Kandiah, Dinoojan — Vijayarajah, Dinoojan  
 Kandiah, Senthuran — Vijayarajah, Senthuran  
 Kandiah, Vijayarajah — Vijayarajah, Kandiah  
 Kean, Michele, Alice — Francis, Michele, Alice  
 Kelly, Charlene, Marion — Jordan, Charlene, Marion  
 Kesik, Agata, Maria — Kesik-Scanlan, Agata, Maria  
 Khorana-Medeiros, Shaloni — Medeiros, Shaloni  
 Klein, Anne-Marie — MacDonald, Anne-Marie  
 Koh, Christina, Soo-Tien — Allison, Christina, Soo-Tien  
 Koo, Teresa, Suk, Fun — Li, Teresa, Suk, Fun  
 Korzycka, Magorzata, Agatha — Maronowska, Magorzata, Agatha  
 Kovacic, Predrag — Kovacic, Steve, P. Cody  
 Kowalewski, Maria — Moser, Maria  
 Krzyzak, Danuta — Chelmecki, Danuta  
 Kurzac, Diana — Zuchowski, Diana  
 Kusniak, Anne, Marie — De La Franier, Anne, Marie  
 Kuszelewski, Barbara, Christine — Curigan, Barbara, Christine  
 Lafrance, Rosanne, Yvette — MacMillan, Rosanne, Yvette  
 Landriault, Andrew, Nicholas — Draper, Andrew, Nicholas  
 Lane, Sarah, Elizabeth — Dorsey, Sarah, Elizabeth  
 Lansky, Rebecca — Case, Rebecca  
 Lapote, Brenda, Mary — Shackles, Brenda, Mary  
 Laramée, Susan, Jean — Knox, Susan, Jean  
 Lawson, Stacey, Lynne — Danne, Stacey, Lynne  
 Le, Thai, Son — Le, Tony  
 Leblanc, Joseph, Aime — Leblanc, Mike, Joseph  
 Ledwidge, Adam, Bradley, Mervin — McDonald, Adam, Bradley, Mervin  
 Leibovitz, Debra, Faith — Libman, Debra, Faith  
 Lenart, Anna — Horvatic, Anna  
 Lepage, Karen, Laurie — Booker, Karen, Laurie  
 Lessard, Tracey, Lee — Smith, Tracey, Lee  
 Leung, Julia, Hong, Lan — Escudero, Julia, Hong, Lan  
 Levere, Tonya, Lynn — Shaver, Tonya, Lynn  
 Levy, Ann, Miriam — Seymour, Ann, Miriam  
 Lindsay, Karen, Lee-Ann — Hall, Karen, Lee-Ann  
 Lipinski, Gerhard, Adolf — Lipinski, George, Gerrard  
 Lloyd, Anne, Maria — Lloyd Cook, Anne, Maria  
 Lochan, Phulandai — Maharaj, Peggyann, Samara  
 Long, Rona, Mary — Marsden, Rona, Mary  
 Loo, Pok, Sing — Law, Oliver, Pok, Sing  
 Loucks, Susan, Dawn — Anderson, Susan, Dawn  
 Lowe, Margaret, Kathleen — Lowe Braaten, Margaret, Kathleen  
 Lund, Anne, Marie — Isaacson, Anne, Marie  
 Mac Lean, Paula-Emilia — Hillier, Paula-Emilia  
 Mac Phail, Barbara, Anne — Davis, Barbara, Anne  
 Macleod, Mary, Catherine — Watson, Mary, Catherine  
 Madhosingh, Indira — Chooraman, Indira  
 Maian, Elana — Hahn, Elana, Maian  
 Mallovy, Helen, Mary — Mallovy-Hicks, Helen, Mary  
 Maneklal, Heema — Kumar, Heema  
 Mann, Beant, Kaur — Gill, Beant, Kaur  
 Mann, Paramjit, Kaur — Sidhu, Pramjit, Kaur  
 Maraz, Constance, Margaret — Gaertner, Constance, Margaret  
 Marchen, Kathryn, Anne — Malone, Kathryn, Anne  
 Marcotte, Eleanor, Edith — Gratton, Eleanor, Edith  
 Markell, Shannon, Michelle — Lettington, Shannon, Michelle  
 Martin, William, Dean — McGregor, William, Dean  
 Marubashi, Naomi — Chan, Naomi  
 Mason, Betty-Marie — Mason-Fryer, Betty-Marie  
 Massey, Angela, Diane — Funstin, Angela, Diane  
 Matias, Solange, Aparecida, De Souza — Matias-Ferraro, Solange, Aparecida, De Souza  
 Matson, Judy, Elizabeth, Helmi — Dempsey, Judy, Elizabeth, Helmi  
 Matunin, Betty, Marie — Harasymuk, Betty, Marie  
 Maynard, Kelly, Irene — Imhoff, Kelly, Irene  
 Maynard, Marva, Stephanie — Bell, Marva, Stephanie  
 McDonald, Shawn, David — Deshevy, Shawn, David  
 McDowell, Patricia, Marie — Cronin, Patricia, Marie  
 Mc Elhone, Jacqueline, Helena — Liberatore, Jacqueline, Helena  
 Mc Innes, Jennifer, Lynn — Pratt, Jennifer, Lynn  
 Mc Innes, Shane, Bernard — Pratt, Shane, Bernard  
 Mc Innes, Shaune, George — Pratt, Shaune, George  
 Mc Kay, Susan, Mae — Necan, Susan, Mae  
 Mc Lean, Christopher, Warren — Balkind, Christopher, Leonard  
 McBean, Kathy, Lynn — Woodworth, Kathy, Lynn  
 McCaffrey, Mary, Patricia, Ann — Rinaldo, Mary, Patricia, Ann  
 McCandless, Karen, Elaine, Marie — Brooks, Karen, Elaine, Marie  
 McCormack, Sheila, Darlene — Plumley, Sheila, Darlene  
 McCrory, Maureen, Teresa — Loughran, Maureen, Teresa  
 McGillivray, Mary, Jean — McLaughlin, Mary, Jean

McGoey, Maureen, Marie — Smith, Maureen, Marie  
 McHendry, Sandra, Jane — Owens, Sandra, Jane  
 McLaughlin, Rosemary — Inglis, Rosemary  
 McPhail, Anne, Heather — McPhail-Jacquemart, Anne, Heather  
 Medeiros, Rose, Mary — Medeiros-Hanley, Rose, Mary  
 Medek, Michelle, Antonette — Connnor, Michelle, Antonette  
 Mendez, Nohemy, Francisca — Bodgen, Nohemy, Francisca  
 Mendoza, Charito — Madden, Charito  
 Mensah-Koduah, Margaret, Patricia — Roberts, Margaret, Patricia  
 Micallef, Petra, Michelle — Simpson, Petra, Michelle  
 Mifflin, Karen, Louise — Watkins, Karen, Louise  
 Mifsud, Mary, Grace — Prout, Mary, Grace  
 Miller, Lynn, Marie — Maahs, Lynn, Marie  
 Miller, Yvonne, Matilda — White, Yvonne, Matilda  
 Minhinick, Margo, Lynn — Orlotan, Margo, Lynn  
 Mithrothanas, Georgina — Grasso, Georgina  
 Mondelli, Emilia, Anna — Mondelli, Miranda, Emilia-Anna  
 Montelongo, Marilyn, Aileen — Jensen, Marilyn, Aileen  
 Montgomery, Bonnie, Mae — Mc Culligh, Bonnie, Mae  
 Montpetit, Aurelia, Marie — Montpetit-Levesque, Aurelia, Marie  
 Mooney, Joanne, Patricia — Chiasson, Joanne, Patricia  
 Moore, Lori, Leanne — Wood, Lori, Leanne  
 Mueller, Marilyn, Ruby — Miller, Marilyn, Ruby  
 Murphy, Cynthia, Lynn, Irene — Deyo, Cynthia, Lynn, Irene  
 Murray, Sandra, Marie — Scammell, Sandra, Marie  
 Mustapha, Yasmin — Kranjec Mustapha, Yasmin  
 Nadeau, Denise, Marie, Candy — Raymond, Denise, Marie, Candy  
 Nagy, Anne — Teslia, Anne  
 Nakamura, Liane, Tammy, Patricia, Sume — Nakamura, Liane, Sumiko, Patricia, Tammy  
 Nalliah, Niranjini — Jayaratnam, Niranjini  
 Nampohnsang, Suttahwan — Namsaeng, Suttahwan  
 Napier, Lori, Ann — O'Sullivan, Lori, Ann  
 Nault, Patrick — Nagy, Patrick Stephen  
 Nehmatallah, Hind — Nader, Hind  
 Nemeth, Julianna, Etelka — Streadwick, Julianna, Etelka  
 Nemeth, Rita, Shirley — Hradsky, Rita, Shirley  
 Neumann, Wendy — Pisani, Wendy  
 Ngo, Thi, Chuan — Le, Judy  
 Nicolas, Myrna, Jean — Robinson, Myrna, Jean  
 Nicoll, Cherie, Marie — Thorpe, Cherie, Marie  
 O'Donnell, Rhonda, Lorraine — Campbell, Rhonda, Lorraine  
 O'Hara, Charlene, Deborah — Sackett, Charlene, Deborah  
 On, Thi, Diem, Nga — On, Hannah, Nga  
 Ostrowski, Hanna, Aleksandra — Aprile, Hanna, Aleksandra  
 Ouellette, Linda, Louise, Mary — Champagne, Linda, Julie, Mary  
 Ouzounidis, Maria — Pappas, Mary  
 Palaszewski, Tara, Pauline, Marie — Palaszewski, Tara, Pauline, Marie, Fournel  
 Papineau, Mary Christine — Krten, Mary, Christine  
 Pappas, Pat, Panagiota — Narlidis, Pat, Panagiota  
 Pascual, Milagros — Merali, Milagros, C.  
 Paul, Patricia, Elizabeth — Paul-Brooks, Patricia, Elizabeth  
 Paun, Catherine, Rose — Suriani, Catherine, Rose  
 Pawlikowska, Magdalena, Wanda — Tomasik, Magdalena, Wanda  
 Pawloski, Marianne, Adele — Yanes Pawlowski, Marianne, Adele  
 Payeur, Brenda, Simonne, Marie — Woodhall, Brenda, Simonne, Marie  
 Pecarskie, Ivy, Jean, Catherine — Mask, Ivy, Jean, Catherine  
 Penar, Denyse, Marie, Isabelle — Mills, Denyse, Marie, Isabelle  
 Penney, Christopher, Ian — Meischl, Christopher, Ian  
 Penney, Elizabeth, Victoria — Meischl, Elizabeth, Victoria  
 Penney, Suzanne, Marie — Roberts, Suzanne, Marie  
 Pereira, Dolores, Da, Conceicao, Machado — Hilson, Dolores, Da, Conceicao, Machado  
 Persaud, Narinedai — Punit, Narinedai  
 Pichette, Charlotte, Jennifer — Watkinson, Charlotte, Jennifer  
 Pilon, Julie, Anne, Marie — Pilon-Dittburner, Julie, Ann, Marie  
 Piperigos, Ioannis — Ricos, John, Piperigos  
 Plante, Denise, Marie — Corbin, Denise, Marie  
 Plummer, Vinnel, Rhehany — Plummer-Matheson, Vinnel, Rhehany  
 Poc, Vong, Cu — Poc, Dave-Lynn  
 Poppel, Piriya — Murrell, Piriya  
 Ponniah, Easwary — Sarvananthan, Easwary  
 Potter, Lee, Ellen — Potter-Kuoni, Lee, Ellen  
 Potvin, France — Froats, France

Poulsen, Micheal, Joseph — Poulsen-Maye, Michael, Joseph  
 Prescott, Laurie, Anne — Smith, Laurie, Anne  
 Priest, Catherine, Audrey — Baker, Catherine, Audrey  
 Prosper, Lucy — Maffie, Lucy  
 Przybylska, Malgorzata — Juzepczuk, Malgorzata  
 Puckett, Michele, Denise — Wyer, Michele, Denise  
 Quansah, Charlotte — Quansah-Abban, Charlotte  
 Quinlan, David, John — Sheppard, David, John  
 Quinlan, Lisa, Marie — Sheppard, Lisa, Marie  
 Quinlan, Steven, William — Sheppard, Steven, William  
 Quirk, Susan Jane — Quirk Drolet, Susan, Jane  
 Rae, Jacqueline, Anne — Cimini, Jacqueline, Anne  
 Rafiq, Mohammad, Saeed, Sajid — Rafiq, Paul  
 Ramnanansingh, Patricia — Whatley, Patricia  
 Ramsaran, Naraini — Sunichura, Naraini  
 Ramsey, Tracy, Audra — Hummel, Tracy, Audra  
 Randell, Donna, Christine — Fisher, Donna, Christine  
 Raponi, Nancy, Barbara — Smith, Nancy, Barbara  
 Raymond, Derrick, Keith — Raymond-Prior, Derrick, Keith  
 Reid, Barbara, June — Reid, Barbara, Anne  
 Reid, Holly, Phyllis, Eileen — Gardner, Holly, Phyllis, Eileen  
 Reid, Pamela, Luraine — Parks, Pamela, Luraine  
 Revellin-Clerc, Sophia, Margse — Mosar, Sophia, Maryse  
 Riebertz, Susan, Lynn — Morgan, Susan, Lynn  
 Riggio, Giacomo — Lucia-Riggio, Giacomo, Gianni, Francesco  
 Riley, Debra, Jacqueline — Sullivan, Debra, Jacqueline  
 Ringuette, Nancy, Joyce — Condie, Nancy, Joyce  
 Ritacco, Cinzia — Fontecilla, Cinzia  
 Rix, Patricia, Frances — Townsend, Patricia, Frances  
 Rockefeller, Leasa, Yvonne — Janssen, Leasa, Yvonne  
 Rogers, Kimberly, Kathryn — Beatty, Kimberly, Kathryn  
 Romano, Antonia — Sadlier, Antonia  
 Roth, Linda, Ann — Bekiroglu, Linda, Ann  
 Rowbotham, Patricia, Paulene — Harnock, Patricia, Paulene  
 Roy, Marie, Rita, Nicole — Goodwin, Marie, Rita, Nicole  
 Rumleskie, Janie, Marie — Smith, Janie, Marie  
 Rusch, Sean, Nicholas — Pare, Sean, Nicholas  
 Ruscica, Sebastian, John — Rush, Sebastian, John  
 Rutherford, Karin, Susanna — Downey, Karin, Susanna  
 Ruzbehi, Manutscher — Ruzbie, Mark  
 Ruzicka, Jiri — Von Balazssovics, Jiri  
 Sadavoy, Vanessa, Joanne — Tellier, Vanessa, Joanne  
 Sadowyj, Lisa, Marie — Snow, Lisa, Marie  
 Sahib, Iqbal, Achmal, Khan — Khan, Zain  
 Samis, Jill, Elizabeth — McCutcheon, Jill, Elizabeth  
 Sanderson, Mary, Elizabeth — Baxter, Mary, Elizabeth  
 Sangster, Janis, Leslie — Boase, Janis, Leslie  
 Schaefer, Tammy, Jean — Mattie, Tammy, Jean  
 Schedewitz, Brenda, Lynn — Hadjikezian, Brenda, Lynn  
 Schmidtke, Robert, Owen — Perkins, Robert, Owen  
 Schon, Anja — Turner, Anja  
 Scott, Betty, Lou — Parsons, Betty, Lou  
 Scott, Derek, Garnet — Kleinstuber, Derek, Garnet  
 Scott, Irene, Lucille — Bayly, Irene, Lucille  
 Sebesta, Carolin — Ciardelli, Carolin  
 Selkirk, Evelyn, Ferguson — Zahnow, Evelyn, Ferguson  
 Selleck, Rhonda, Lynn — Cusson, Rhonda, Lynn  
 Senechal, Susan, Elaine — Manley, Susan, Elaine  
 Sentner, Darlene, Sandra — Artt, Darlene, Sandra  
 Serbu, Mary, Ann — Cyr, Mary, Ann  
 Shaw, Nancy, Lorraine — Garrett, Nancy, Lorraine  
 Shepherd, Susan, Yvonne — Dillen, Susan, Yvonne  
 Shepley, Frederick, Burns — London, Frederick, Burns  
 Sherb, John David — Sherb, Martin, David  
 Shin, Hae, Kyung — Burak, Hae, Kyung  
 Shore, Jenny, Lee — Giroux, Jenny, Lee  
 Shore, Jody, Lynn — Giroux, Jody, Lynn  
 Singh, Champawattie — Ramcharitar, Champawattie  
 Singh, Martin, Suresh — Adamson, Mark  
 Singh, Yougawattie — Kallidass, Yougawattie  
 Sippel, Petra, Ellen — Vaillant, Petra, Ellen  
 Sira, Solange, Veronique — Sira-Byrne, Solange, Veronique  
 Sitzes, Tammy, Louise — Abray, Tammy, Louise  
 Skoumidas, Demetra, Ula — Meimaris, Demetra, Ula  
 Skrinjar, Dubravka — Wheatcroft, Dubravka  
 Slaney, Lee, Ann — Beniac, Lee, Ann

Smillie, Gina, Margaret — Watson, Gina, Margaret  
 Smith, Bonnie, Lynn — Perez Salvador, Bonnie, Lynn  
 Smith, Cynthia, Jean — Marr, Cynthia, Jean  
 Smith, Lorna, May — Smith, Hasina, Atiba, Lorna  
 Smith, Ruth, Elizabeth — Priebe, Ruth, Elizabeth  
 Smith, Sharon, Elizabeth — Horne, Sharon, Elizabeth  
 Smuck, Kelly, Marie — McClintock, Kelly, Marie  
 Solomon, Irene — Kasimos, Irene  
 Soobratee, Nigel, Burt — Hector, Nigel  
 Souksay, Houmpheng — Foo, Fred, Kai, Pio  
 Spanton, Lydia, Gabrielle — Oulster, Lydia, Gabrielle  
 Speirs, Fiona, Jane — Robinson, Fiona, Jane  
 Spina, Rosa, Maria — Wade, Rosa, Maria  
 Staples, Edwina, Joan — Melville-Gray, Edwina, Joan  
 Staveley, Laura, Dawn — Gordon, Laura, Dawn  
 Steacy, Sharon, Ruth — Lameront, Sharon, Ruth  
 Stewart, Pauline, McKenzie — Plante, Pauline, McKenzie  
 Stokes, Mavis, Ann, Francis — Thomas, Mavis, Ann, Francis  
 Stol, John, Peter — Stol, Jacob, Philip  
 Strati, Cynthia, Adassa — Mitchell, Cynthia, Adassa  
 Stretton, Carmella, Marie — Thompson, Carmella, Marie  
 Stringer, Venal, Lynn — Travis, Vernal, Lynn  
 Striramassara, Haridoss — Sarma, Haridoss  
 Striramassara, Kalavathi — Sarma, Kalavathi  
 Striramassara, Vivek — Sarma, Vivek  
 Stroud, Glen — Stroud, James, Glen  
 Susko, Carolyn-Grace — General, Carolyn-Grace  
 Swartz, Ronald, Barry — Barry, Ron  
 Swift, Valerie, Anne — Swift-Alderdice, Valerie, Anne  
 Sylvester, Chad, James — Izsak, Chad, James  
 Szeto, Lucia, Ngan, Yung — Tam, Lucia, Ngan, Yung  
 Szucs, Margaret — Delima, Margaret  
 Tao, Lilly — Kwan, Lilly  
 Taylor, Brent, Derek, Alexander — Barr-Taylor, Brent, Derek, Alexander  
 Taylor, Jamie, Leonard — Taylor, James, Leonard  
 Telfer, Norma, Hyacinth — Telfer-Campbell, Norma, Hyacinth  
 Thambipillai, Vasanthi, Gilory — Benedict, Vasanthi, Glory  
 Thauvette, Mary, Irene, Catherine, Joanne — Fraser, Mary, Irene, Catherine, Joanne  
 Thiessen, Gail, Sandra — McGeorge, Gail, Sandra  
 Thomas, Pamela — Stewart, Pamela  
 Thomas, Yvonne, Patricia — Roberts, Yvonne, Patricia  
 Thompson, Julie, Ann — Tobiasz, Julie, Ann  
 Tjin, Fatima — Au, Fatima  
 Todorovich, Geoffrey, Dean — Black, Geoffrey, Dean  
 Tokar, John, Barry — Tucker, John Barry  
 Tomasi, Lorella, Maria — Piirik, Lorella, Maria  
 Tong, Percy, Trevor — Strong, Trevor  
 Tos, Rosemary — Tos-Belsito, Rosemary  
 Townsend, Gwen, Lisa — Sampson, Gwen, Lisa  
 Tsui, Janet, Pui-Ying — Tsui-Lam, Janet, Pui-Ying  
 Tufford, Janet, Eleanor — Gunn, Janet, Eleanor  
 Tutt, Catherine, Anne — Rousseau, Catherine, Anne  
 Underwood, Marie, Anne — Collins, Marie, Anne  
 Van Oostveen, Elisabeth, Rolanda — Newman, Elisabeth, Rolanda  
 Veira, Suzanne, Adele — Waddel, Suzanne, Adele  
 Verman, Denesh — Chauhan, Denesh  
 Viau, Claire, Lynn — Shymko, Claire, Lynn  
 Vigneault, Manon, Marie, France — Wright, Manon, Marie, France  
 Villanueva, Joy, Co — Chin, Joy, Co  
 Vincent, Margriet — Hintz, Margriet  
 Wagner, Barbara, Elisabeth — Wagner-Heim, Barbara, Elisabeth  
 Wakely, Angela, Diana — Dix, Angela, Diana  
 Walker, Marilyn, Denise — Walker-Bird, Marilyn, Denise  
 Waller, Kimberly, Joan — Katigbak, Kimberly, Joan  
 Ward, Jeffrey, Scott — Ward-La Thangue, Jeffrey, Scott  
 Warner, Cindy, Lee — Stendahl, Cindy, Lee  
 Wasley, Debra, Louise — Melanson, Debra, Louise  
 Watt, Christeen, Agnes — Canzanese, Christeen, Agnes  
 Watterson, Elizabeth, Anne — Martin, Elizabeth, Anne  
 Webb, Carol, Anne — Cote, Carol, Anne  
 Weinrauch, Pamela — Blankfort, Pamela  
 White, Heather, Mae — Toupin, Heather, Mae  
 Williams, Tracy, Joy — Williams-Jasper, Tracy, Joy  
 Willms, Susan, Margaret — Wilms, Susan, Margaret

Wilmsmeyer, Deborah — Christensen, Deborah  
 Wilson, Kelly, Anne — Elson, Kelly, Anne  
 Wiseman, Ellen, Ruth — Holtzman, Ellen, Ruth  
 Wisner, Karin, Isolde — Krywenkyj, Karin, Isolde  
 Witton, Linda, Jane — Adams, Linda, Jane  
 Wong, Marie, Chau, Mei — Wong Kim, Marie, Chau, Mei  
 Woodhouse, Margaret, Ruth — Corbett, Margaret, Ruth  
 Wright, Marie, Philomena — Gauthier, Marie, Philomena  
 Wunderlich, Rita, Linda — Van Bendegem, Rita, Linda  
 Wyer, Michele, Denise — Power, Michele, Denise  
 Yacobino, Barbara, Lea — Campbell, Barbara, Lea  
 Yankah, Gifty — Manu, Gifty  
 Young-Legacy, Amanda, Lynn — Hepburn, Amanda, Lynn  
 Zander, Susan — Mundell, Susan  
 Zimmerman, Elizabeth — Cooper, Elizabeth  
 Zylstra, Susanna, Julia — Torok, Susanna, Julia

(4605) 8  
 CAROLYNN LA CHAPPELLE,  
 Deputy Registrar General.

## Loan and Trust Corporations Act, 1987 Loi de 1987 sur les compagnies de prêt et de fiducie

### PUBLIC NOTICE

NOTICE IS HEREBY GIVEN that the registration of Citibank Canada Mortgage Corporation with its Head Office in Toronto, Ontario, has been revoked pursuant to section 36 of the *Loan and Trust Corporations Act*, 1987 effective January 31, 1991.

(4606) 8  
 BRIAN E. CASS  
 Superintendent of Deposit Institutions

## Applications to Provincial Parliament—Private Bills Demandes au Parlement provincial—Projets de loi d'intérêt privé

### PUBLIC NOTICE

The rules of procedure and the fees and costs related to applications for Private Bills are set out in the Standing Orders of the Legislative Assembly. Copies of the Standing Orders may be obtained from:

The Office of the Clerk of the Legislative Assembly  
 Room 1521, Whitney Block, Queen's Park  
 Toronto, Ontario M7A 1A2

Telephone: 416/963-1300 (Collect calls will be accepted.)

Applicants should note that consideration of applications for Private Bills that are received after the first day of September in any calendar year may be postponed until the first regular Session in the next following calendar year.

(8699) T.F.N.  
 CLAUDE L. DESROSIERS,  
 Clerk of the Legislative Assembly.

## Petitions to Provincial Parliament Pétitions au Parlement provincial

Extract from the Standing Orders respecting petitions

35. (c) Every petition shall:
- (i) be addressed to the Parliament, Legislature or Legislative Assembly of Ontario;

- (ii) contain a clear, proper and respectful request that the House take some action within its authority;
  - (iii) be written, typewritten or printed, without erasures or insertions;
  - (iv) have its request appear at the top of every sheet, if it consists of more than one sheet of signatures; and
  - (v) contain the names, addresses and original signatures written directly on the face of the petition and not pasted thereon or otherwise transferred to it.
- (d) Every member presenting a petition shall ensure that the petition conforms with the Standing Orders.
- (e) The signature of every member presenting a petition shall be affixed to the petition.

Further information with respect to petitions may be obtained from:

Journals Branch  
Room 110, Legislative Building  
Queen's Park  
Toronto, Ontario  
M7A 1A2

Telephone: 416/965-1406  
(Collect calls will be accepted.)

#### SAMPLE FORM FOR PETITIONS

##### PETITION

TO *The Parliament/Legislature/Legislative Assembly* (choose one) of Ontario:—

WHEREAS (preamble if required)

WHEREAS (preamble if required)

I/We the undersigned petition the Parliament/Legislative Assembly (choose one) of Ontario as follows:—

(Text of Petition)

Name (printed)                      Address (printed)                      Signature

(4268) T.F.N.                      CLAUDE L. DESROSIERS,  
Clerk of the Legislative Assembly.

## Applications to Provincial Parliament Demandes au Parlement provincial

### KOREAN-CANADIAN CULTURAL ASSOCIATION OF METROPOLITAN TORONTO

NOTICE IS HEREBY GIVEN that on behalf of the Korean-Canadian Cultural Association of Metropolitan Toronto, application will be made to the Legislative Assembly of the Province of Ontario at its next regular session commencing in 1991 for an Act to exempt the lands and premises owned by the said Korean-Canadian Cultural Association of Metropolitan Toronto and municipality, located at 20 Mobile Drive, in the City of North York, from municipal taxation, including school taxes.

The application will be considered by the Standing Committee on Regulations and Private Bills. Any person who has an interest in the application and who wishes to make submissions, for or against the application, to the Standing Committee on Regulations and Private Bills should notify, in writing, the Clerk of the Legislative Assembly, Queen's Park, Toronto, Ontario, M7A 1A2.

Dated this 6th day of February, 1991.

(1282) 6 to 9                      BOB BAK  
Commissioner, External Affairs

### RIDEAU TRAIL ASSOCIATION

NOTICE IS HEREBY GIVEN that on behalf of Rideau Trail Association, application will be made to the Legislative Assembly of the Province of Ontario for an Act to revive the Corporation.

The application will be considered by the Standing Committee on Regulations and Private Bills. Any person who has an interest in the application and who wishes to make submissions, for or against the application, to the Standing Committee on Regulations and Private Bills should notify, in writing, the Clerk of the Legislative Assembly, Queen's Park, Toronto, Ontario, M7A 1A2.

Dated at Kingston, this 29th day of January, 1991.

(1289) 7 to 10                      ELIZABETH M. MCIVER,  
Vice-President.

## Corporation Notices Avis relatifs aux compagnies

### J. B. TOOL & DIE LIMITED

NOTICE IS HEREBY GIVEN that J. B. Tool & Die Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 16th day of January, 1991.

(1324) 8                      WILLIAM WIENER,  
Secretary-Treasurer.

### UMBRELLA FAMILY AND CHILD CENTRES OF HAMILTON

NOTICE IS HEREBY GIVEN that the number of Directors of Umbrella Family and Child Centres of Hamilton was increased from three (3) to eleven (11) by a Special Resolution which was confirmed by the members of the Corporation on the 16th day of January, 1991.

Dated this 5th day of February, 1991.

(1325) 8                      JENNIFER A. POWELL-FRALICK,  
Secretary.

### 708982 ONTARIO LIMITED

NOTICE IS HEREBY GIVEN that 708982 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 6th day of February, 1991.

(1326) 8                      BARBARA BROOKS,  
President.

### 596228 ONTARIO LTD.

NOTICE IS HEREBY GIVEN that 596228 Ontario Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 8th day of February, 1991.

(1327) 8                      CARL X. LAPRAIRIE, JR.,  
Secretary.

### 592890 ONTARIO INC.

NOTICE IS HEREBY GIVEN that 592890 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Leamington, this 8th day of February, 1991.

(1328) 8                      MARION LAVERNE ROBINSON,  
Secretary.

**DUNNING ENTERPRISES LTD.**

NOTICE IS HEREBY GIVEN that Dunning Enterprises Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Owen Sound, this 7th day of February, 1991.

(1329) 8 ANNABEL DUNNING,  
President & Secretary-Treasurer.

**603442 ONTARIO INC.**

NOTICE IS HEREBY GIVEN that 603442 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Hamilton, this 7th day of February, 1991.

(1330) 8 ARTHUR ADAMS,  
President.

**THE NEW DYNES TAVERN LIMITED**

NOTICE IS HEREBY GIVEN that The New Dynes Tavern Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Oakville, this 6th day of February, 1991.

(1331) 8 ROBERT D. COLBRAN,  
President.

**ACADEMY PICTURES INC.**

NOTICE IS HEREBY GIVEN that Academy Pictures Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Mississauga, this 12th day of February, 1991.

(1332) 8 J. N. DHAWAN,  
President.

**589142 ONTARIO LTD.**

NOTICE IS HEREBY GIVEN that 589142 Ontario Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at North Bay, this 16th day of July, 1990.

(1333) 8 BOWNESS & MURRAY,  
Barristers & Solicitors.

**MURCAN CAPITAL MANAGEMENT LTD.**

NOTICE IS HEREBY GIVEN that Murcan Capital Management Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 20th day of December, 1990.

(1334) 8 THOMAS S. WILSON,  
Secretary.

**PT. MAITLAND SHIPBREAKING LTD.**

NOTICE IS HEREBY GIVEN that Pt. Maitland Shipbreaking Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 28th day of December, 1990.

(1335) 8 BENJAMIN NEWMAN,  
Secretary.

**728577 ONTARIO LIMITED**

NOTICE IS HEREBY GIVEN that 728577 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 5th day of February, 1991.

(1336) 8 FREDERICK E. ROSS,  
Secretary.

**596165 ONTARIO LIMITED**

NOTICE IS HEREBY GIVEN that 596165 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 5th day of February, 1991.

(1337) 8 FREDERICK E. ROSS,  
Secretary.

**748813 ONTARIO LIMITED**

NOTICE IS HEREBY GIVEN that 748813 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 5th day of February, 1991.

(1338) 8 FREDERICK E. ROSS,  
Secretary.

**427197 ONTARIO LIMITED**

NOTICE IS HEREBY GIVEN that 427197 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 6th day of February, 1991.

(1339) 8 JOHN HOLTON,  
President.

**CATALA HOLDINGS LIMITED**

NOTICE IS HEREBY GIVEN that Catala Holdings Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 6th day of February, 1991.

(1340) 8 JOHN HOLTON,  
President.

**ALEXANDRA PARK NEIGHBOURHOOD LEARNING  
CENTRE OF TORONTO**

NOTICE IS HEREBY GIVEN that the number of Directors of Alexandra Park Neighbourhood Learning Centre of Toronto was increased from three (3) to eleven (11) by a special resolution which was confirmed by the members of the Corporation on the 13th day of December, 1990.

Dated at Toronto, this 14th day of February, 1991.

(1341) 8 ELIZABETH CUMBERLAND,  
Secretary.

**805423 ONTARIO INC.**

NOTICE IS HEREBY GIVEN that 805423 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 1st day of February, 1991.

(1342) 8 ARTHUR D. SILVER,  
Director.

**VOICE FOR HEARING IMPAIRED CHILDREN**

NOTICE IS HEREBY GIVEN that the number of directors of Voice For Hearing Impaired Children was increased from fifteen to twenty-one, one of whom is ex officio, by special resolution which became effective on February 2, 1991.

Dated this 2nd day of February, 1991.

(1343) 8 R. PRYDE,  
Secretary.

**744210 ONTARIO LTD.**

NOTICE IS HEREBY GIVEN that 744210 Ontario Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 5th day of February, 1991.

(1344) 8 S. JANICE MCAULEY,  
President.

**735831 ONTARIO LTD.**

NOTICE IS HEREBY GIVEN that 735831 Ontario Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 5th day of February, 1991.

(1345) 8 S. JANICE MCAULEY,  
President.

**J & F MARTELL (TORONTO) INC.**

NOTICE IS HEREBY GIVEN that J & F Martell (Toronto) Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Montreal, this 30th day of January, 1991.

(1346) 8 PHILLIPS & VINEBERG,  
Barristers & Solicitors.

**BESANCOURT PUBLISHERS LTD.**

NOTICE IS HEREBY GIVEN that Besancourt Publishers Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Brockville, this 25th day of January, 1991.

(1347) 8 LINDA TEN CATE,  
Secretary.

**489 DUPONT INVESTMENTS LIMITED**

NOTICE IS HEREBY GIVEN that 489 Dupont Investments Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 6th day of February, 1991.

(1348) 8 JOHN KORINEK,  
Secretary.

**DUNHAM-PRUITT HOLDINGS LIMITED**

NOTICE IS HEREBY GIVEN that Dunham-Pruitt Holdings Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 8th day of February, 1991.

(1349) 8 GEORGE L. PLODER,  
Secretary.

**P. G. PHOTO & GRAPHIC DESIGN**

NOTICE IS HEREBY GIVEN that P. G. Photo & Graphic Design Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Ottawa, this 4th day of February, 1991.

(1350) 8 PETER GASPARINI,  
President.

**735830 ONTARIO LTD.**

NOTICE IS HEREBY GIVEN that 735830 Ontario Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 5th day of February, 1991.

(1351) 8 ROY K. KUSANO,  
President.

**744211 ONTARIO LTD.**

NOTICE IS HEREBY GIVEN that 744211 Ontario Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 5th day of February, 1991.

(1352) 8 ROY K. KUSANO,  
President.

**BAY BEVERAGES LTD.**

NOTICE IS HEREBY GIVEN that Bay Beverages Ltd. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 31st day of January, 1991.

(1353) 8 W. R. BRUCE HILL,  
Secretary.

**PROFESSIONAL BUILDING (AJAX) LIMITED**

NOTICE IS HEREBY GIVEN that Professional Building (Ajax) Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Ajax, this 1st day of February, 1991.

(1354) 8 JAN WILLEM BOSCH,  
President.

**C.J. ENTRANCES CONSULTING INC.**

NOTICE IS HEREBY GIVEN that C.J. Entrances Consulting Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Uxbridge, this 31st day of January, 1991.

(1355) 8 C. J. RUSH,  
President.

**NATALIE DEVELOPMENTS LIMITED**

NOTICE IS HEREBY GIVEN that Natalie Developments Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Oshawa, this 4th day of February, 1991.

(1356) 8 GWEN SWARBRICK-SALMON,  
Secretary.

**PALAZZI BROTHERS TILE & CARPET (LONDON) LIMITED**

NOTICE IS HEREBY GIVEN that Palazzi Brothers Tile & Carpet (London) Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 8th day of February, 1991.

(1357) 8 MARCO PALAZZI,  
Secretary.

**ZETLAND HOLDINGS LIMITED**

NOTICE IS HEREBY GIVEN that Zetland Holdings Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Toronto, this 5th day of February, 1991.

(1358) 8 MORRIS JUSTEIN,  
President.

**692241 ONTARIO INC.**

NOTICE IS HEREBY GIVEN that 692241 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at North York, this 31st day of January, 1991.

(1359) 8 CHRISTINA CHUI,  
Secretary.

**ROUST VEHICLES INC.**

NOTICE IS HEREBY GIVEN that Roust Vehicles Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 4th day of February, 1991.

(1360) 8 R. WELSH,  
Secretary-Treasurer.

**731502 ONTARIO LIMITED**

NOTICE IS HEREBY GIVEN that 731502 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 1st day of February, 1991.

(1361) 8

GORD MCMAHON,  
Secretary.

**THE ONTARIO COUNCIL OF TEACHING HOSPITALS**

NOTICE IS HEREBY GIVEN that the number of directors of The Ontario Council of Teaching Hospitals was increased from 18 to 20 by a special resolution which was confirmed by the members of the corporation on February 1, 1991.

Dated at Toronto, this 12th day of February, 1991.

(1362) 8

LENORE I. MILLS,  
Executive Director.

**752543 ONTARIO INC.**

NOTICE IS HEREBY GIVEN that 752543 Ontario Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated this 30th day of January, 1991.

(1363) 8

CHRISTO NICOLAOU,  
Secretary.

**BIRKENCRAIG ISLAND CONSERVATION SOCIETY**

NOTICE IS HEREBY GIVEN that the number of directors of Birkencraig Island Conservation Society was increased from three (3) to ten (10) by a special resolution which was confirmed by the members of the Corporation on the 6th day of August, 1989.

Dated this 4th day of February, 1991.

(1365) 8

NANCY GORDON,  
Secretary.

**ONTARIO LASER AND LIGHTWAVE RESEARCH CENTRE (OLLRC)**

NOTICE IS HEREBY GIVEN that the number of directors of Ontario Laser and Lightwave Research Centre (OLLRC) was increased from 15 to 18 by a special resolution which was confirmed by the members of the Corporation on the 4th day of January, 1991.

Dated this 4th day of January, 1991.

(1366) 8

M. E. CHARLES,  
Secretary.

**749445 ONTARIO LIMITED**

NOTICE IS HEREBY GIVEN that 749445 Ontario Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated the 8th day of February, 1991.

(1367) 8

ANDRE DEBLETTE,  
Secretary.

**BOCA CAB INC.**

NOTICE IS HEREBY GIVEN that Boca Cab Inc. intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at Scarborough, this 7th day of January, 1991.

(1368) 8

ZISSIS KATSOULIS,  
Secretary.

**BEAMSVILLE MEDICAL CENTRE LIMITED**

NOTICE IS HEREBY GIVEN that Beamsville Medical Centre Limited intends to dissolve pursuant to the *Business Corporations Act, 1982*.

Dated at St. Catharines, this 31st day of January, 1991.

(1369) 8

HAROLD DELBERT LATHAM,  
President.

**MOSS PARK COMMUNITY DEVELOPMENT PROJECT CORPORATION  
Ontario Corporation Number 913536**

NOTICE IS HEREBY GIVEN that the number of directors of Moss Park Community Development Corporation was increased from five (5) to six (6) by a Special Resolution which was confirmed unanimously by the members of the Corporation on the 16th day of January, 1991.

Dated this 14th day of February, 1991.

(1370) 8

MARY FRANCES WALKER,  
Secretary.

**Miscellaneous Notices  
Avis divers****HYCO EMPLOYEES' (REXDALE) CREDIT UNION LIMITED**

NOTICE IS HEREBY GIVEN that the members of Hyco Employees' (Rexdale) Credit Union Limited passed a special resolution on February 7, 1991 to wind up the credit union pursuant to the *Credit Unions and Caisse Populaires Act*.

Dated this 8th day of February, 1991.

(1322) 8

R. DA SILVA  
President

**CHURCH OF ALL NATIONS (TORONTO)  
CREDIT UNION LIMITED**

NOTICE IS HEREBY GIVEN that the members of the Church of All Nations (Toronto) Credit Union Limited passed a special resolution on February 6, 1991 to wind up the credit union pursuant to the *Credit Unions and Caisse Populaires Act*.

Dated this 8th day of February, 1991.

(1323) 8

R. KAJIOKA  
President

**Sales of Lands for Tax Arrears  
by Public Auction  
Ventes de terrains aux enchères publiques  
pour arriéré d'impôt**

MUNICIPAL TAX SALES ACT, 1984

**THE CORPORATION OF THE COUNTY OF KENT**

TAKE NOTICE that THE LAND(S) described below will be offered for sale by public auction at 2:00 o'clock in the afternoon on the 10th day of April, 1991 at County of Kent Municipal Building, Council Chambers.

Description of Land(s)	Minimum Bid
Township of Romney Roll No. 01-113-05 Part of Lot 101 and 102, Registered Plan 389, Township of Romney, County of Kent . . . . .	\$945.43
Township of Tilbury East Roll No. 01-337-00 Part of Lot 4, Concession 6, in the Township of Tilbury East, County of Kent. . . . .	\$2,401.79
Roll No. 03-493-00 Lot 12, Registrar's Compiled Plan 773, in the Township of Tilbury East, in the County of Kent. . . . .	\$3,878.63

All amounts payable by the successful purchaser shall be payable in full at the time of the sale by cash or money order or by a bank draft or cheque certified by a bank, trust company or Province of Ontario Savings Office.

The municipality makes no representation regarding the title to or any other matters relating to the land to be sold. Responsibility for ascertaining these matters rest with the potential purchasers.

This sale is governed by the *Municipal Tax Sales Act, 1984*, and the *Municipal Tax Sales Rules*. The successful purchaser will be required to pay the amount bid plus accumulated taxes and relevant land transfer tax.

For further information regarding this sale, contact:

James Lundy  
Treasurer,  
Corporation of the County  
of Kent  
435 Grand Ave. W.  
P.O. Box 1230  
Chatham, Ontario. N7M 5L8

(1364) 8

# Publications under the Regulations Act

## Publications en vertu de la Loi sur les règlements

1991—02—23

**ONTARIO GUARANTEED ANNUAL INCOME ACT****O. Reg. 30/91.**

Guaranteed Income Limit.  
Made—January 31st, 1991.  
Filed—February 5th, 1991.

### REGULATION MADE UNDER THE ONTARIO GUARANTEED ANNUAL INCOME ACT

**GUARANTEED INCOME LIMIT**

1. Commencing with January, 1991, the guaranteed income limit for purposes of,

- (a) subclause 1 (j) (i) of the Act is \$10,316.52;
- (b) subclause 1 (j) (ii) of the Act is \$8,551.80;
- (c) subclause 1 (j) (iii) of the Act is \$8,551.80; and
- (d) subclause 1 (j) (iv) of the Act is \$17,103.60. O. Reg. 30/91, s. 1.

2. Ontario Regulation 641/90 is revoked.

3. This Regulation shall be deemed to have come into force on the 1st day of January, 1991.

8/91

**FINANCIAL ADMINISTRATION ACT****O. Reg. 31/91.**

Destruction of Securities.  
Made—February 4th, 1991.  
Filed—February 5th, 1991.

### REGULATION MADE UNDER THE FINANCIAL ADMINISTRATION ACT

**DESTRUCTION OF SECURITIES**

1.—(1) The Treasurer may destroy securities issued and held by the Province of Ontario if the securities are of no further value because they have been paid, cancelled or redeemed by the Province.

(2) The Treasurer shall prepare and retain a destruction certificate listing the destroyed securities. O. Reg. 31/91, 2. 1.

8/91

**PROVINCIAL PARKS ACT****O. Reg. 32/91.**

General.  
Made—January 31st, 1991.  
Filed—February 6th, 1991.

### REGULATION TO AMEND REGULATION 822 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE PROVINCIAL PARKS ACT

1. Subsection 33 (1) of Regulation 822 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 65/90, is revoked and the following substituted:

(1) The fees payable for the use of a provincial park and its facilities are set out in Schedules 1, 2 and 3. O. Reg. 32/91, s. 1.

2. Subsection 33 (3a) of the Regulation, as made by section 1 of Ontario Regulation 87/88 and amended by section 2 of Ontario Regulation 291/89, section 1 of Ontario Regulation 65/90 and section 6 of Ontario Regulation 128/90, is further amended by striking out “3” in the third line and substituting “4”.

3. Schedules 1, 2 and 3 to the Regulation, as made by section 2 of Ontario Regulation 65/90, are revoked and the following substituted:

**Schedule 1****FEES FOR PERSONS OTHER THAN SENIOR CITIZENS**

	<u>Full Rate</u>	<u>Rate if water is not provided</u>
1. Camp-site and vehicle permit per night:		
(a) camp-site with electricity	\$14.72	\$10.28
(b) provincial park with showers	12.38	Not applicable
(c) provincial park without showers	10.98	8.18
(d) additional vehicle permit	5.37	3.97
2. Interior camping permit per night:		
(a) per person eighteen years of age or over but not a senior citizen	3.04	3.04
(b) per person under eighteen years of age but not over twelve years of age	1.64	1.64
(c) per person under twelve years of age	None	None
3. Reservation fee for camp-site and vehicle permit or interior camping permit	4.21	4.21

## 4. Day use:

## Schedule 3

## GROUP CAMPING FEES

(a) daily vehicle permit	5.37	5.37
(b) seasonal vehicle permit (Apr. 1 – Oct. 31)	32.24	32.24
(c) seasonal vehicle permit (Nov. 1 – Mar. 31)	21.50	21.50
(d) bus permit	31.31	31.31
5. Boat mooring permit	6.31	6.31
6. Aircraft landing:		
(a) daily permit	5.37	5.37
(b) seasonal permit (Apr. 1 – Oct. 31)	32.24	32.24
(c) seasonal permit (Nov. 1 – Mar. 31)	21.50	21.50

O. Reg. 32/91, s. 3, *part.*

	<u>Full Rate</u>	<u>Rate if water is not provided</u>
Group camping per night:		
(a) basic group site fee	\$8.18	\$8.18
(b) additional fee for each member of the group who is eighteen years of age or over but not a senior citizen	1.64	1.64
(c) additional fee for a night other than a Friday or Saturday night for each member of the group who is a senior citizen	.93	.93
(d) additional fee for a Friday or Saturday night for each member of the group who is a senior citizen	None	None

O. Reg. 32/91, s. 3, *part.*

## 4. The Regulation is amended by adding the following Schedule:

## Schedule 2

## GENERAL SENIOR CITIZEN FEES

	<u>Week Night</u>	<u>Friday or Saturday Night</u>	
	<u>Full Rate</u>	<u>Rate if water is not provided</u>	
1. Camp-site and vehicle permit per night for parties that consist of senior citizens and no other persons other than their spouses and persons under eighteen years of age:			
(a) camp-site with electricity	None	\$7.48	\$5.14
(b) provincial park with showers	None	6.07	Not applicable
(c) provincial park without showers	None	5.37	4.21
(d) additional vehicle permit	None	2.57	1.87
2. Interior camping permit per night per person	None	1.64	1.64
3. Reservation fee for camp-site and vehicle permit or interior camping permit	4.21	4.21	4.21
4. Day use	None	None	None
5. Boat mooring permit	None	3.27	3.27

O. Reg. 32/91, s. 3, *part.*

## Schedule 4

## FEES FOR CAMPING IN PROVINCIAL PARKS NAMED IN THE TABLE TO SUBSECTION 33 (3a)

1. Camping per night per person:	
(a) non-residents of Canada,	
(i) eighteen years of age or over	3.04
(ii) under eighteen years of age	None
(b) residents of Canada	None

O. Reg. 32/91, s. 4.

## 5. This Regulation comes into force on the 1st day of April, 1991.

8/91

## FARM PRODUCTS GRADES AND SALES ACT

## O. Reg. 33/91.

Grain.

Made—January 31st, 1991.

Filed—February 7th, 1991.

REGULATION TO AMEND  
ONTARIO REGULATION 653/84  
MADE UNDER THE  
FARM PRODUCTS GRADES AND SALES ACT

1.—(1) Clause 1 (b) of Ontario Regulation 653/84, as remade by section 1 of Ontario Regulation 405/89, is amended by striking out “Soya-Bean” in the second line and substituting “Soybean”.

(2) Clause 1 (c) of the Regulation, as remade by section 1 of Ontario Regulation 405/89, is amended by striking out “soya-beans” in the first line and substituting “soybeans”.

8/91

## EDUCATION ACT

**O. Reg. 34/91.**

Ontario Teacher's Qualifications.

Made—January 31st, 1991.

Approved—January 31st, 1991.

Filed—February 7th, 1991.

**REGULATION TO AMEND  
REGULATION 269 OF REVISED REGULATIONS  
OF ONTARIO, 1980  
MADE UNDER THE  
EDUCATION ACT**

**1. Clause 20 (1) (b) of the Regulation, as remade by section 12 of Ontario Regulation 222/86, is revoked and the following substituted:**

- (b) is entitled under the laws of Canada to obtain employment in Canada as a teacher, if the candidate is not a Canadian citizen or a permanent resident of Canada;

**2. Clause 21 (d) of the Regulation, as remade by section 14 of Ontario Regulation 222/86, is revoked and the following substituted:**

- (d) is entitled under the laws of Canada to obtain employment in Canada as a teacher, if the candidate is not a Canadian citizen or a permanent resident of Canada,

**3. Clause 22 (1) (c) of the Regulation, as remade by section 15 of Ontario Regulation 222/86, is revoked and the following substituted:**

- (c) is entitled under the laws of Canada to obtain employment in Canada as a teacher, if the candidate is not a Canadian citizen or a permanent resident of Canada; and

**4.—(1) Section 22a of the Regulation, as made by section 1 of Ontario Regulation 111/86 and amended by section 17 of Ontario Regulation 222/86 and section 10 of Ontario Regulation 157/87, is revoked and the following substituted:**

**22a.—(1)** The Minister may grant to a candidate a Provisional Letter of Standing valid for one year for the teaching of a Native language as a second language if the dean of a college or faculty of education or the director of a school of education in Ontario reports to the Deputy Minister that the candidate,

- (a) has demonstrated an acceptable degree of fluency in the Algonquian or Iroquoian language;
- (b) has complied with section 2;
- (c) has successfully completed the first session of an approved program for Teacher of a Native Language as a Second Language; and
- (d) is entitled under the laws of Canada to obtain employment in Canada as a teacher, if the candidate is not a Canadian citizen or a permanent resident of Canada.

(2) A Provisional Letter of Standing granted under subsection (1) shall be in Form 4, where the program referred to in clause (1) (c) was taken in English, or in Form 4a, where the program was taken in French. O. Reg. 34/91, s. 4 (1).

**(2) Section 22b of the Regulation, as made by section 1 of Ontario Regulation 111/86, is revoked and the following substituted:**

**22b.** The Minister may extend a candidate's Provisional Letter of Standing for one year for the teaching of a Native language as a second language if the dean of a college or faculty of education or the director

of a school of education in Ontario reports to the Deputy Minister that the candidate,

- (a) holds a Provisional Letter of Standing granted under section 22a;
- (b) has submitted evidence of at least one year of successful teaching experience in a Native language as a second language, as certified by,
  - (i) the appropriate supervisory officer, where the successful teaching experience was in Ontario and was not in a school operated on an Indian reserve, or
  - (ii) the appropriate supervisory official, where the successful teaching experience was outside Ontario or in a school operated on an Indian reserve in Ontario; and
- (c) has successfully completed the second session of an approved program for Teacher of a Native Language as a Second Language after completing the experience referred to in clause (b). O. Reg. 34/91, s. 4 (2).

**(3) Section 22c of the Regulation, as made by section 1 of Ontario Regulation 111/86 and amended by section 18 of Ontario Regulation 222/86 and section 11 of Ontario Regulation 157/87, is revoked and the following substituted:**

**22c.—(1)** The Minister may grant to a candidate a Permanent Letter of Standing for the teaching of a Native language as a second language if the dean of a college or faculty of education or the director of a school of education in Ontario reports to the Deputy Minister that the candidate,

- (a) holds a Provisional Letter of Standing extended under section 22b;
- (b) has submitted evidence of at least one year of successful teaching experience in a Native language as a second language, following the completion of the teaching experience referred to in section 22b, as certified by,
  - (i) the appropriate supervisory officer, where the successful teaching experience was in Ontario and was not in a school operated on an Indian Reserve, or
  - (ii) the appropriate supervisory official, where the successful teaching experience was outside Ontario or in a school operated on an Indian Reserve in Ontario; and
- (c) has successfully completed the third session of an approved program for Teacher of a Native Language as a Second Language after completing the successful teaching experience referred to in clause (b).

(2) The Permanent Letter of Standing granted under subsection (1) shall be in Form 9, where the program referred to in clause (1) (c) was taken in English, or in Form 9a, where the program was taken in French. O. Reg. 34/91, s. 4 (3).

**5. Clause 25 (2) (b) of the Regulation, as remade by section 22 of Ontario Regulation 222/86, is revoked and the following substituted:**

- (b) is entitled under the laws of Canada to obtain employment in Canada as a teacher, if the candidate is not a Canadian citizen or a permanent resident of Canada;

**6.—(1) Clause 27 (a) of the Regulation, as remade by section 2 of Ontario Regulation 194/85, is revoked and the following substituted:**

- (a) holds or has been recommended by the dean or the director for an Ontario Teacher's Certificate or a Temporary Letter of Standing;

**(2) Clause 27 (c) of the Regulation, as remade by section 2 of Ontario Regulation 194/85, is revoked and the following substituted:**

- (c) has successfully completed an approved program leading to qualifications in an additional area of concentration in the primary division, the junior division, the intermediate division in general studies or the senior division in general studies, or has qualifications that the Minister considers equivalent to the successful completion of such a program,

**7. Clauses 28 (1) (a) and (b) of the Regulation, as remade by section 3 of Ontario Regulation 194/85, are revoked and the following substituted:**

- (a) holds or has been recommended by the dean or the director for an Ontario Teacher's Certificate or a Temporary Letter of Standing;
- (b) has successfully completed an approved program leading to additional qualifications in a subject listed in Schedule C, or has qualifications that the Minister considers equivalent to the successful completion of such a program;

**8. Clauses 30 (a) and (b) of the Regulation, as remade by section 5 of Ontario Regulation 194/85, are revoked and the following substituted:**

- (a) holds or has been recommended by the dean or the director for an Ontario Teacher's Certificate or a Temporary Letter of Standing; and
- (b) has successfully completed an approved program leading to additional qualifications in a subject listed in Schedule D, or has qualifications that the Minister considers equivalent to the successful completion of such a program,

**9. Subclause 31 (a) (i) of the Regulation, as remade by section 6 of Ontario Regulation 194/85, is revoked and the following substituted:**

- (i) all qualifications listed in Schedule E except Computers in the Classroom, Co-operative Education, Guidance, Industrial Arts, Media, Multiculturalism in Education, Music – Instrumental, Music – Vocal (Primary, Junior), Music – Vocal (Intermediate, Senior), Special Education, The Blind, The Deaf, The Deaf/Blind and Visual Arts, the candidate's Ontario Teacher's Qualifications Record Card or the record of qualification in respect of the teacher held by the Ministry has an entry showing qualifications in the primary division, the junior division, the intermediate division in general studies or the senior division in general studies, or

**10. Clause 32 (c) of the Regulation, as remade by section 7 of Ontario Regulation 194/85, is amended by striking out "officer" in the last line and substituting "official".**

**11. Clause 33 (c) of the Regulation, as remade by section 8 of Ontario Regulation 194/85, is revoked and the following substituted:**

- (c) submits evidence of at least two years of successful teaching experience, including at least one year of experience in Ontario in the subject referred to in clause (b), certified by the appropriate supervisory officer and, if some of the experience was outside Ontario, by the appropriate supervisory official; and

**12.—(1) Clause 37 (1) (c) of the Regulation, as remade by section 9 of Ontario Regulation 194/85, is revoked and the following substituted:**

- (c) submits evidence of at least two years of successful teaching experience, including at least one year of experience in Ontario in the subject or one or both of the subjects in which the Honours Specialist qualification is sought, certified by the appropriate supervisory officer and, if some of the experience was outside Ontario, by the appropriate supervisory official; and

**(2) Clause 37 (4) (c) of the Regulation, as remade by section 9 of Ontario Regulation 194/85, is revoked and the following substituted:**

- (c) submits evidence of at least two years of successful teaching experience, including at least one year of experience in Ontario in technological studies, certified by the appropriate supervisory officer and, if some of the experience was outside Ontario, by the appropriate supervisory official;

**(3) Subsection 37 (5) of the Regulation, as remade by section 9 of Ontario Regulation 194/85, is amended by inserting after "Industrial Arts" in the sixth line "or Computer Studies — Computer Technology".**

**13. Section 49 of the Regulation is revoked and the following substituted:**

**49.—(1)** The Minister may grant to a board a Letter of Permission for a period specified in the letter if the director of education or secretary of the board submits to the appropriate Regional Director of Education of the Ministry, in duplicate, an application in Form 7 or 7a together with evidence that,

- (a) the board has advertised at least three times in a daily newspaper having provincial circulation in Ontario a position for which a teacher is required under the regulations;
- (b) at least one advertisement appeared more than one month before the start of employment;
- (c) seven days have passed since the date of the final advertisement; and
- (d) no teacher has applied for the position or no teacher who has applied for the position has accepted it.

**(2) The period for which a Letter of Permission is granted,**

- (a) shall not exceed one year; and
- (b) shall not extend beyond the end of a school year unless,
  - (i) the period begins after the end of a school year and ends before the beginning of the next school year, and
  - (ii) at least one of the advertisements referred to in clause (1) (a) appeared after the 30th day of April in the year in which the application is submitted. O. Reg. 34/91, s. 13.

**14. Section 50 of the Regulation is revoked and the following substituted:**

**50.—(1)** The Minister may grant to a board a Temporary Letter of Approval for a period specified in the letter if the director of education or secretary of the board submits to the appropriate Regional Director of Education of the Ministry, in duplicate, an application in Form 8 or 8a certifying that,

- (a) the board finds it necessary to assign or appoint a teacher to teach a subject or hold a position who does not hold the qualifications required under the regulations for teaching the subject or holding the position; and
- (b) the teacher in respect of whom the application is made,

- (i) holds an Ontario Teacher's Certificate or a Letter of Standing, and
- (ii) is considered competent to teach the subject or hold the position.

(2) The period for which a Temporary Letter of Approval is granted,

- (a) shall not exceed one year; and
- (b) shall not extend beyond the end of a school year unless the period begins after the end of a school year and ends before the beginning of the next school year. O. Reg. 34/91, s. 14.

**15. Schedule A to the Regulation, as amended by section 1 of Ontario Regulation 27/84 and section 1 of Ontario Regulation 703/87, is revoked and the following substituted:**

#### Schedule A

Intermediate and Senior Division Options  
taken in English or French

Business Studies – Accounting  
Business Studies – Data Processing  
Business Studies – Marketing and Merchandising  
Business Studies – Information Management  
Classical Studies – Greek  
Classical Studies – Latin  
Computer Science  
Dance  
Dramatic Arts  
Economics  
English (First language)  
English (Second language) – anglais  
Environmental Science  
Family Studies  
French (Second language)  
French (First language) – français  
Geography  
History  
Individual and Society  
Industrial Arts  
International Languages  
Law  
Mathematics  
Music – Instrumental  
Music – Vocal  
Native Language (Second language)  
Native Studies  
Politics  
Physical and Health Education  
Science – General  
Science – Biology  
Science – Chemistry  
Science – Geology  
Science – Physics  
Visual Arts

O. Reg. 34/91, s. 15.

**16. Schedule E to the Regulation, as amended by section 4 of Ontario Regulation 567/82, section 17 of Ontario Regulation 157/87, section 2 of Ontario Regulation 703/87 and section 1 of Ontario Regulation 415/88, is revoked and the following substituted:**

#### Schedule E

Three Session Qualifications  
taken in English or French

Business Studies – Accounting  
Business Studies – Data Processing  
Business Studies – Entrepreneurship Studies  
Business Studies – Marketing and Merchandising  
Business Studies – Information Management

Computer Studies – Computer Science  
Computers in the Classroom  
Co-operative Education  
Dance  
Dramatic Arts  
English as a Second Language  
Environmental Science  
Family Studies  
French as a Second Language  
Guidance  
Industrial Arts  
Intermediate Education  
International Languages  
Junior Education  
Librarianship  
Mathematics in Primary and Junior Education  
Media  
Multiculturalism in Education  
Music – Instrumental  
Music – Vocal (Primary, Junior)  
Music – Vocal (Intermediate, Senior)  
Native Language as a Second Language  
Physical and Health Education (Primary, Junior)  
Physical and Health Education (Intermediate, Senior)  
Primary Education  
Reading  
Religious Education  
Science in Primary and Junior Education  
Special Education  
The Blind  
The Deaf  
The Deaf/Blind  
Visual Arts

O. Reg. 34/91, s. 16.

**17. Schedule F to the Regulation, as amended by section 3 of Ontario Regulation 703/87, is revoked and the following substituted:**

#### Schedule F

Honour Specialist Qualifications  
taken in English or French

Biology  
Business Education  
Chemistry  
Computer Science  
Contemporary Studies  
Dance  
Dramatic Arts  
English (First language)  
English (Second language) – anglais  
Environmental Science  
Family Studies  
French (Second language)  
French (First language) – français  
Geography  
Geology  
Greek  
History  
International Languages  
Latin  
Mathematics  
Music  
Physical and Health Education  
Physics  
Science  
Visual Arts

O. Reg. 34/91, s. 17.

**18. Forms 8 and 8a of the Regulation are revoked and the following substituted:**

**Form 8***Education Act***APPLICATION FOR TEMPORARY LETTER OF APPROVAL**

To the Regional Director of Education of the Ministry:

On behalf of .....  
(name of board)A TEMPORARY LETTER OF APPROVAL is requested to employ .....  
(name in full)

Social Insurance Number .....

Basic Certification .....

as a .....  
(teacher, principal, etc.)of .....  
(subject, division, school)from ..... 19 ..... to ..... 19 .....  
(date) (date)

I certify that the Board finds it necessary to appoint or assign the teacher named above who does not hold the qualifications required by the regulations for the position but is considered competent to carry out the duties of the position.

Date ..... 19 .....  
Director of Education or  
Secretary of the Board**TEMPORARY LETTER OF APPROVAL IS GRANTED**Date ..... 19 .....  
Minister of Education**Form 8a***Loi sur l'éducation***DEMANDE D'APPROBATION TEMPORAIRE**

Au directeur régional de l'Éducation du ministère :

Au nom du .....  
(nom du conseil scolaire)Une APPROBATION TEMPORAIRE est demandée pour l'emploi de .....  
(nom au complet)

Numéro d'assurance sociale .....

Brevet de base .....

en qualité de .....  
(enseignant, directeur d'école, etc.)de .....  
(matière, cycle, école)

du ..... 19 ..... au ..... 19 .....

Je certifie que le conseil scolaire estime nécessaire de nommer ou

d'affecter à ce poste l'enseignant susnommé qui ne possède pas les qualifications requises par les règlements, mais qui est jugé compétent pour en exercer les fonctions.

Date ..... 19 .....  
Le directeur de l'Éducation ou  
le secrétaire du conseil scolaire**LETTRE D'APPROBATION TEMPORAIRE ACCORDÉE**Date ..... 19 .....  
Le ministre de l'Éducation

O. Reg. 34/91, s. 18.

MARION BOYD  
Minister of Education

Dated at Toronto, this 31st day of January, 1991.

8/91

**RETAIL SALES TAX ACT****O. Reg. 35/91.**

Definitions by Minister.

Made—February 7th, 1991.

Filed—February 8th, 1991.

**REGULATION TO AMEND  
REGULATION 903 OF REVISED REGULATIONS  
OF ONTARIO, 1980  
MADE UNDER THE  
RETAIL SALES TAX ACT****1.—(1) Subsection 6 (3) of Regulation 903 of Revised Regulations of Ontario, 1980, as remade by section 2 of Ontario Regulation 109/89, is amended by striking out "three" in the second line and substituting "four".****(2) Subsection 6 (9) of the Regulation, as made by section 2 of Ontario Regulation 109/89, is amended by striking out "three" in the sixth line and substituting "four".****2. Clause 12 (5) (a) of the Regulation, as made by section 2 of Ontario Regulation 168/90, is amended by striking out "three" in the second line and substituting "four".****3. Clause 23 (8) (a) of the Regulation, as made by section 3 of Ontario Regulation 168/90, is amended by striking out "three" in the second line and substituting "four".****4. Clause 25 (a) of the Regulation, as made by section 11 of Ontario Regulation 568/83, is amended by striking out "sixty" in the second line and substituting "seventy-two".****5. The Regulation is amended by adding the following section:****17.—(1) For the purpose of clause 2b (3) (d) of the Act, a purchaser who leases, for a period of less than thirty days, tangible personal property to which pneumatic tires are attached or in connection with which the tires are supplied shall pay the tax imposed by the Act in the amount of 15 cents for each day in the lease period.****(2) This section applies to leases entered into on or after the 28th day of January, 1991. O. Reg. 35/91, s. 5.****6.—(1) This Regulation, except section 5, shall be deemed to have come into force on the 1st day of January, 1991.****(2) Section 5 shall be deemed to have come into force on the 28th day of January, 1991.**

**7. Regulation 903 of Revised Regulations of Ontario, 1980, as it read on the 31st day of December, 1990, continues to apply to sales made before the 1st day of January, 1991.**

SHELLEY WARK-MARTYN  
*Minister of Revenue*

Dated at Toronto, this 7th day of February, 1991.

8/91

#### **FARM PRODUCTS MARKETING ACT**

##### **O. Reg. 36/91.**

By-Laws For Local Boards.

Made—January 31st, 1991.

Filed—February 8th, 1991.

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#### **REGULATION TO AMEND REGULATION 353 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE FARM PRODUCTS MARKETING ACT**

**1. Section 4 of Regulation 353 of Revised Regulations of Ontario, 1980 is revoked and the following substituted:**

**4.—**(1) At the first meeting after every general election or appointment of the members of a local board, it shall elect from its members a chair and a vice-chair, and may elect a second vice-chair.

(2) The chair shall, when present, preside at all meetings of the local board.

(3) During the chair's absence or inability to act, a vice-chair may perform the duties of the chair.

(4) If neither the chair nor a vice-chair is present at a meeting, the local board may elect a chair for the purpose of that meeting from among the members present.

(5) The chair and vice-chairs of a local board shall hold office until their successors are elected. O. Reg. 36/91, s. 1.

8/91



## INDEX 08

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